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Superfund State-Lead Remedial Project Management Handbook

Booz-Allen and Hamilton, Inc., Bethesda, MD

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The handbook defines the roles and responsibilities of the Remedial Project Officer (RPM) with regard to State-lead remedial projects at uncontrolled hazardous waste sites. It also discusses project management techniques and the resources available to the RPM for accomplishing his mission.

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PROJECT COORDINATOR'S PREFACE

The *Superfund State-Lead Remedial Project Management Handbook* is intended to serve three general purposes. First, the handbook presents the various actions and deliverables that comprise the State-lead remedial project, and then it defines the roles and responsibilities of the Remedial Project Manager (RPM) in accomplishing those actions and deliverables. Second, the handbook serves as a pathfinder to guide the RPM to the various resources available for support of the remedial project management function. Finally, the handbook introduces the RPM to some of the fundamental concepts of project management to aid the RPM in planning, monitoring, controlling, and directing projects. The handbook should be useful to both new and experienced RPMs as well as supervisory personnel, State personnel, and others involved with Superfund sites.

The handbook presents the various actions and deliverables that comprise the remedial process from initial project planning through project closeout and National Priorities List (NPL) deletion. These actions and deliverables are shown in Exhibit 1-1 in an order that represents their relative sequence in the project. Presenting project components in this manner allows the RPM to find his/her position in the project and look ahead to next events. The objective is to promote a proactive management style of anticipating and resolving problems before they adversely impact project costs, schedule, or technical quality. The handbook also defines the roles and responsibilities of the RPM relative to other project participants such as the State Project Officer (SPO), State contractors, or other EPA program offices.

Project management can be defined as the bringing together of resources according to a plan in order to achieve an objective (usually specified in terms of technical quality or cost and schedule performance). The RPM has an array of resources available to accomplish the project objectives: guidance documents, in-house personnel, and contractor support. In serving its pathfinder function, the handbook narrative directs the RPM to more detailed discussions in relevant guidance documents and references, suggests areas where in-house personnel may be available for review and consultation purposes, and describes the mechanics by which contractor or other agency resources are accessed.

The handbook discusses in general terms some of the fundamental concepts of project management that are readily transferrable to hazardous waste site remedial project management. Three important management functions (planning, monitoring, and control) are described in some detail. Also discussed are the RPM's oversight functions (directing, coordinating, and communicating). It is anticipated that this introduction to the concepts of project management will enhance the development of RPMs as managers.

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Booz, Allen & Hamilton, Inc., Bethesda, Maryland, prepared the handbook (EPA Contract No. 68-01-6888). The Booz, Allen Project Manager was Robert Kravitz. William Lamb and Laurie Ziegenfus developed and coordinated the design and production of the final document. Chapter 2 of the handbook was developed in part by CH_2M Hill.

LIST OF ACRONYMS

AA/OSWER -Assistant Administrator for the Office of Solid Waste and Emergency Response
A/E -Architectural/Engineering
ARAR -Applicable or Relevant and Appropriate Federal or State Standards, Requirements, Criteria, or Limitations
ATSDR - Agency for Toxic Substances and Disease Registry
CA -Cooperative Agreement
CERCLA -Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS -CERCLA Information System
CFR -Code of Federal Regulations
CLP -Contract Laboratory Program
CPM -Critical Path Method
CRP -Community Relations Plan
EA/CA -Engineering Assessment/Cost Analysis
EDD -Enforcement Decision Document
EO -Executive Order
EPA -Environmental Protection Agency
ERA -Expedited Response Action
ERRIS -Emergency and Remedial Response Information System
ERT -Environmental Response Team
ESD -Environmental Services Division
FCC -Fiscal Control Center
FMS -Financial Management System
FS -Feasibility Study
FY -Fiscal Year
GAD -Grants Administration Division
GAO -General Accounting Office
GAB -Grants Administration Branch
HQ -EPA Headquarters
HRS -Hazard Ranking System
HRSD -Hazardous Response Support Division
HSCD -Hazardous Site Control Division
IAG -Interagency Agreement
IFB -Invitation for Bids
IG -Inspector General
IRM -Initial Remedial Measure
LOE -Level of Effort
MBE -Minority Business Enterprise
MSCA -Multi-Site Cooperative Agreement
NCP -National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR 300)
NDD -Negotiations Decision Document
NEIC -National Enforcement Information Center
NPL -National Priorities List
OECM -Office of Enforcement and Compliance Monitoring
OERR -Office of Emergency and Remedial Response
OGC -Office of General Counsel
OLEP -Office of Legal and Enforcement Policy
O&M -Operation and Maintenance
OMB -Office of Management and Budget
ORC -Office of Regional Counsel
OWPE -Office of Waste Programs Enforcement

PA -Preliminary Assessment
PO -Project Officer
PRP -Potentially Responsible Party
QA/QC -Quality Assurance / Quality Control
QAPP -Quality Assurance Project Plan
PTS -Project Tracking System
RA -Remedial Action or Regional Administrator
RC -Regional Coordinator (HSCD)
RCRA -Resource Conservation and Recovery Act
RD -Remedial Design
REM -Remedial Planning Contractors
RFP -Request for Proposals
RFQ -Request for Qualifications
RI -Remedial Investigation
RI/FS -Remedial Investigation/Feasibility Study
ROD -Record of Decision
RPM -Remedial Project Manager
RSCRC -Regional Superfund Community Relations Coordinator
SARA -Superfund Amendments and Reauthorization Act of 1986
SCAP -Superfund Comprehensive Accomplishments Plan
SI -Site Inspection
SOW -Statement of Work
SPO -State Project Officer
SPOC -Single Point of Contact
SRCB -State and Regional Coordination Branch
TAT -Technical Assistance Team
USACE -U.S. Army Corps of Engineers
USACE-MRD -USACE Missouri River Division
WBE -Women's Business Enterprise

1. INTRODUCTION

The term, Remedial Project Manager (RPM), is defined in the *Federal Register* (November 20, 1985) as "... the Federal official designated by EPA ... to coordinate, monitor, or direct remedial activities or other response under Subpart F..." of the revised *National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*. Previously, an RPM was known as a Regional Site Project Officer (RSPO). The RPM is vested with the daily responsibilities of managing the overall project. The RPM must coordinate all the resources available to EPA to ensure that the remedial response is completed cost effectively.

This handbook describes in detail the roles and responsibilities of the RPM in planning, initiating, coordinating, and monitoring State-lead* remedial responses at National Priorities List (NPL) hazardous waste sites. This handbook is intended to provide the RPM with quick reference information on what actions are needed, in coordination with the State, during each step of the remedial process. The handbook does not address pre-remedial activities (preliminary assessments/site inspections). Information on State-lead pre-remedial activities can be found in Appendix A of *State Participation in the Superfund Program*. Much of the information presented in the handbook is drawn from existing EPA policy and guidance documents, in particular:

- *State Participation in the Superfund Program*, February 1984
- *Guidance on Remedial Investigations Under CERCLA*, June 1985
- *Guidance on Feasibility Studies Under CERCLA*, June 1985
- *Superfund Remedial Design and Remedial Action Guidance*, June 1986

The handbook complements another EPA handbook entitled *Superfund Federal-Lead Remedial Project Management Handbook*, December 1986, in which guidance is provided to RPMs in overseeing Federal-lead remedial response projects.

On October 17, 1986, the President signed the Superfund Amendments and Reauthorization Act of 1986 (SARA) amending the current Superfund law and enacting certain additional provisions. SARA continues the process and program that was put in place with the revised *NCP* in November 1985. It contains a number of new provisions, however, that give statutory emphasis to some aspects of the existing program, or that add important new considerations.

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* EPA is developing guidance for providing assistance to political subdivisions of States conducting remedial response activities at Superfund sites under Cooperative Agreements. This handbook generally may be used to assist RPMs in managing these responses. In most places throughout this handbook, the term "political subdivision" may be substituted for "State" without further modification.

This handbook incorporates some of the immediate changes of SARA. Future revisions to this document and other referenced documents will reflect additional changes to implement SARA. The reader is encouraged to study the new statute and to look for a series of memoranda on Reauthorization from Headquarters. The first of this series, *"Implementation Strategy for Reauthorized Superfund: Short Term Priorities for Action,"* October 24, 1986 is available in regional offices.

1.1 STRUCTURE OF THE HANDBOOK

Exhibit 1-1 illustrates the remedial response phases, and the specific activities which occur during the remedial planning and implementation process. The diagrams flow from left to right; however, relative spacings between events are not indicative of real time frames. The top one-third of the diagram represents those activities which are the responsibility of the State contractor, the middle one-third those which are the responsibility of the State, and the bottom one-third those which are the responsibility of EPA. The handbook is structured to correspond to each of these phases and is, therefore, divided into the following chapters:

- Chapter 2, Project Management Concepts
- Chapter 3, Initial Project Planning and Start-up Activities
- Chapter 4, Remedial Investigation and Feasibility Study (RI/FS)
- Chapter 5, Record of Decision (ROD) and Transition to Design
- Chapter 6, Remedial Design (RD)
- Chapter 7, Remedial Action (RA)
- Chapter 8, Project Closeout

Within and at the end of each of these chapters, additional EPA guidance documents are referenced, as appropriate, to direct the RPM to pertinent background and supplementary information. Management interactions between the RPM and the State Project Officer (SPO) and other State personnel, and EPA community relations and enforcement personnel also are carefully noted.

1.2 RPM ROLES AND RESPONSIBILITIES

This handbook emphasizes the need for strong project management throughout the remedial process. Effective project management of State-lead remedial projects must be a cooperative RPM and SPO effort. The RPM provides assistance to the SPO and provides EPA oversight and coordination.

Most EPA Regional Superfund programs have designated RPMs with full remedial project management responsibilities. In these Regions, each RPM manages both the technical and administrative aspects of his/her projects. This designation of responsibilities to one person, who maintains a total overview of each project, is an effective management method. Assigning one person as the EPA contact for each State-lead project also optimizes communication and coordination efforts with the SPO and other State officials involved in each project.

Some large Regions with many remedial projects have determined that effective project management may be maintained by splitting the technical and administrative project responsibilities between two individuals. This method of Regional organization may be useful when individual RPMs are assigned many complicated technical projects. This organization allows for sharing of project responsibilities such that the project administration duties (including financial management) are not handled by the RPM, but by another individual. This individual is experienced in Cooperative Agreement administration, assistance and procurement regulations, and other areas that are critical to successful remedial project management. This arrangement is beneficial in that it may promote more consistent Cooperative Agreement management for many projects within one State and/or among different States within a Region.

This handbook also emphasizes the need for project planning throughout the remedial process. Project planning is essential for good project management. The RPM must keep in mind that each activity of the remedial process [RI, FS, RD, RA, operation and maintenance (O&M)] is only one part of the total project. While each activity is important, the RPM should always try to anticipate and plan for the next steps of the process so that decisions are made in the best interest of the total project.

EXHIBIT 1.1-1
Remedial Site Chronology (State Lead)

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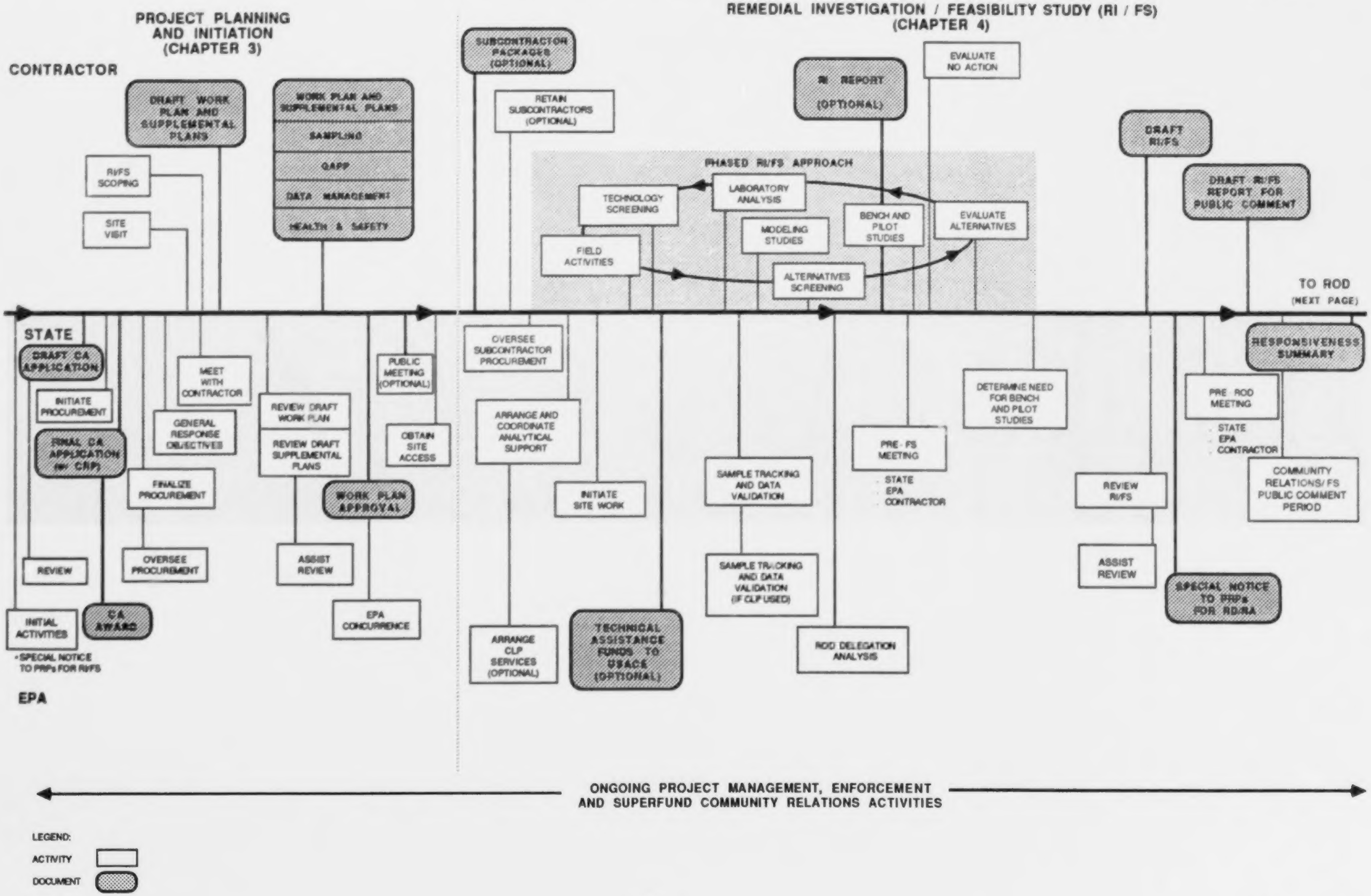
PROJECT PLANNING AND INITIATION (CHAPTER 3)
REMEDIAL INVESTIGATION / FEASIBILITY STUDY (RI / FS) (CHAPTER 4)
CONTRACTOR
DRAFT WORK PLAN AND SUPPLEMENTAL PLANS
RI/FS SCOPING
SITE VISIT
WORK PLAN AND SUPPLEMENTAL PLANS
SAMPLING
QAPP
DATA MANAGEMENT
HEALTH & SAFETY
SUBCONTRACTOR PACKAGES (OPTIONAL)
RETAIN SUBCONTRACTORS (OPTIONAL)
PHASED RI/FS APPROACH
TECHNOLOGY SCREENING
LABORATORY ANALYSIS
FIELD ACTIVITIES
MODELING STUDIES
BENCH AND PILOT STUDIES
EVALUATE ALTERNATIVES
ALTERNATIVES SCREENING
RI REPORT (OPTIONAL)
EVALUATE NO ACTION
DRAFT RI/FS
DRAFT RI/FS REPORT FOR PUBLIC COMMENT
TO ROD (NEXT PAGE)
STATE
DRAFT CA APPLICATION
INITIATE PROCUREMENT
FINAL CA APPLICATION (w/ CRP)
MEET WITH CONTRACTOR
GENERAL RESPONSE OBJECTIVES
FINALIZE PROCUREMENT
REVIEW DRAFT WORK PLAN
REVIEW DRAFT SUPPLEMENTAL PLANS
WORK PLAN APPROVAL
PUBLIC MEETING (OPTIONAL)
OBTAIN SITE ACCESS
OVERSEE SUBCONTRACTOR PROCUREMENT
ARRANGE AND COORDINATE ANALYTICAL SUPPORT
INITIATE SITE WORK
SAMPLE TRACKING AND DATA VALIDATION
PRE - FS MEETING
. STATE
. EPA
. CONTRACTOR
DETERMINE NEED FOR BENCH AND PILOT STUDIES
REVIEW RI/FS
PRE ROD MEETING
. STATE
. EPA
. CONTRACTOR
RESPONSIVENESS SUMMARY
COMMUNITY RELATIONS/ FS PUBLIC COMMENT PERIOD
REVIEW
INITIAL ACTIVITIES
• SPECIAL NOTICE TO PRPs FOR RI/FS
CA AWARD
OVERSEE PROCUREMENT
ASSIST REVIEW
EPA CONCURRENCE
ARRANGE CLP SERVICES (OPTIONAL)
TECHNICAL ASSISTANCE FUNDS TO USACE (OPTIONAL)
SAMPLE TRACKING AND DATA VALIDATION (IF CLP USED)
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ONGOING PROJECT MANAGEMENT, ENFORCEMENT AND SUPERFUND COMMUNITY RELATIONS ACTIVITIES
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Remedial Site Chronology (State Lead)

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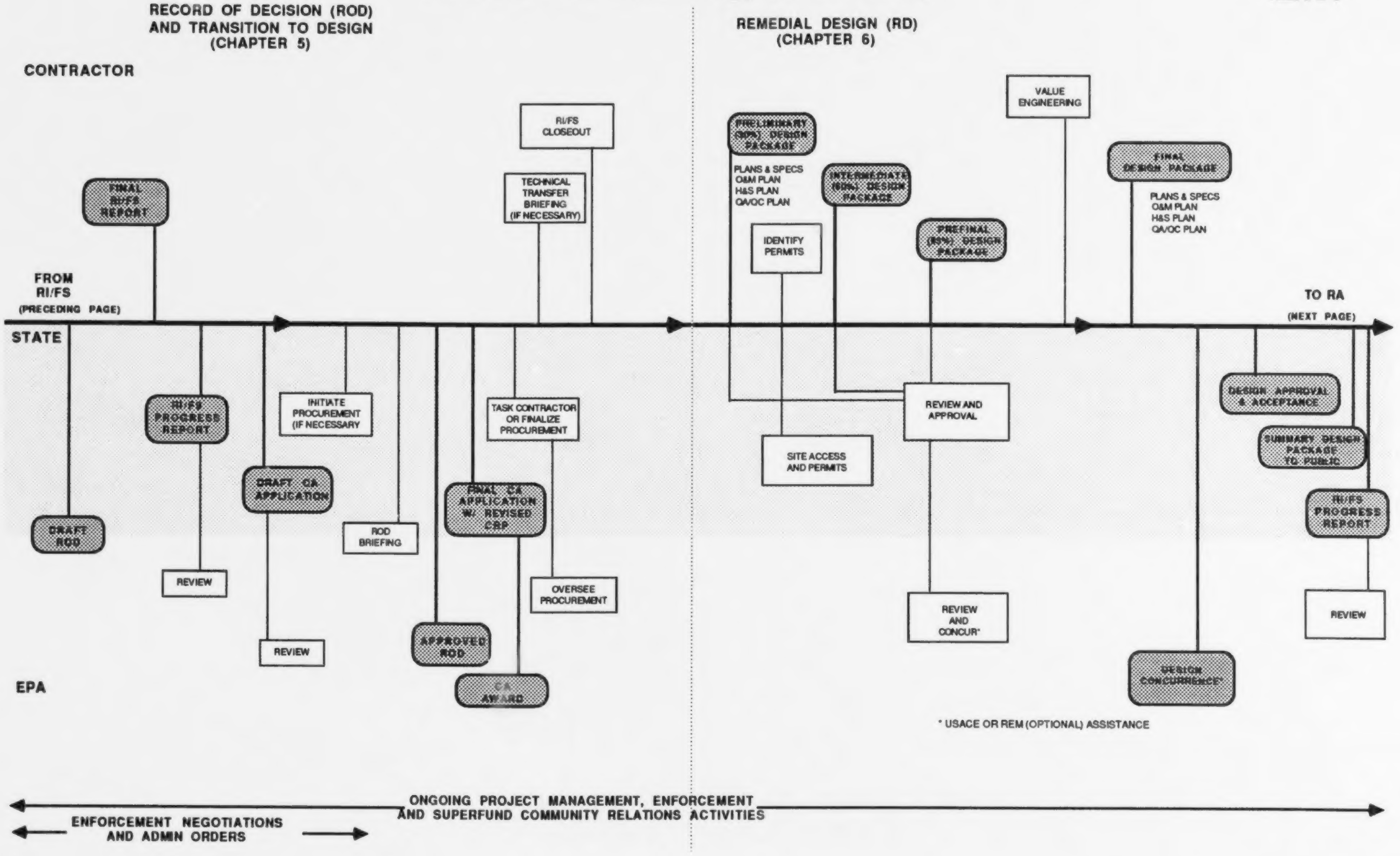

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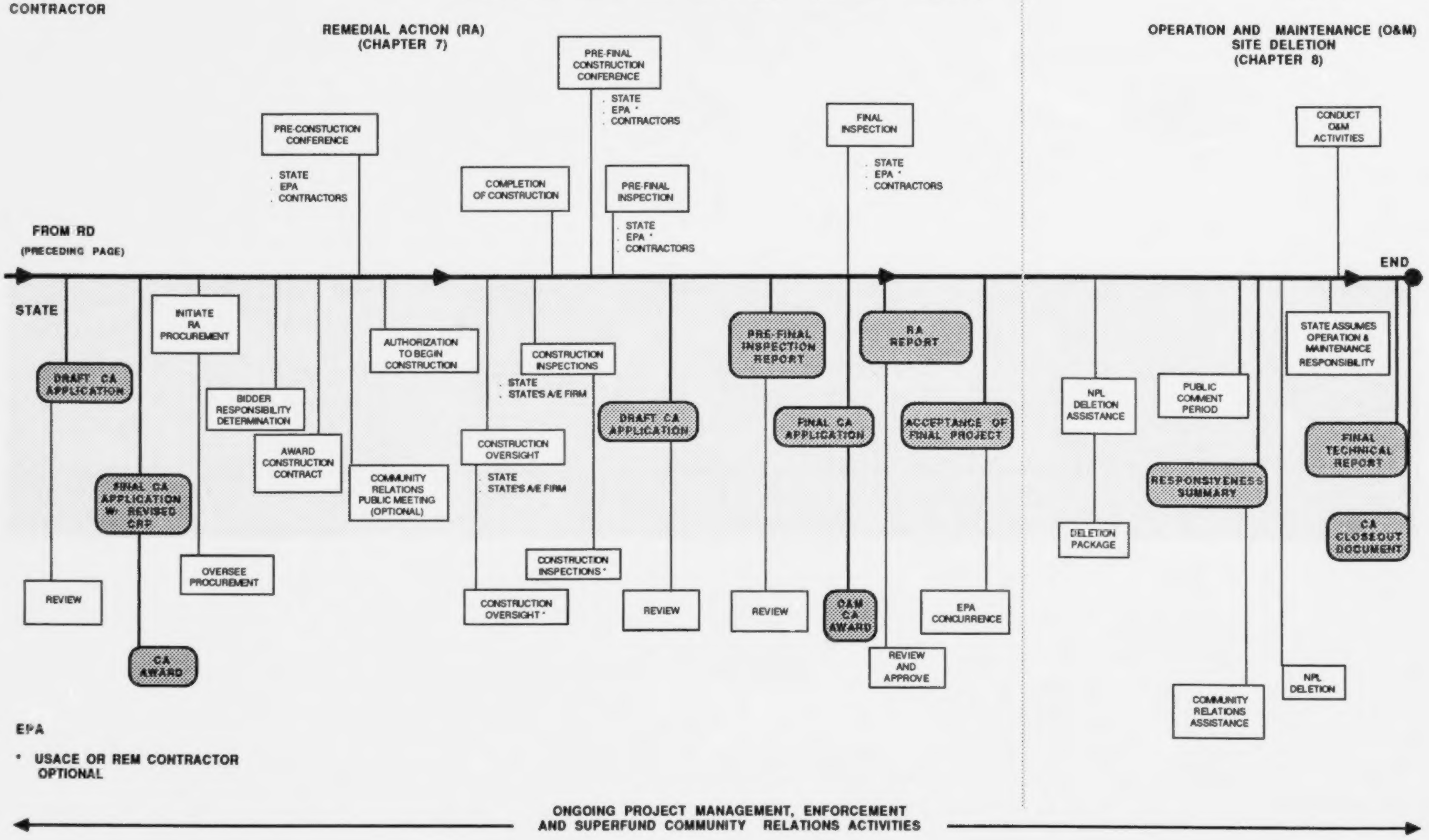
Remedial Site Chronology (State Lead)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COMMUNITY RELATIONS ASSISTANCE
NPL DELETION
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FINAL TECHNICAL REPORT
CA CLOSEOUT DOCUMENT
* USACE OR REM CONTRACTOR OPTIONAL
ONGOING PROJECT MANAGEMENT, ENFORCEMENT AND SUPERFUND COMMUNITY RELATIONS ACTIVITIES

2. PROJECT MANAGEMENT CONCEPTS

Throughout this handbook, roles and responsibilities of the RPM are defined relative to other participating parties. This chapter provides the RPM with some general background in basic project management concepts and begins to relate these concepts to actual practice as found in the Superfund site remedial process. The reader should bear in mind that during certain phases of the project, the use of many of the project management tools discussed here will actually be performed by others [such as the State Project Officer (SPO)]. Even so, the RPM, in an oversight and coordination role, must know enough about these project management concepts and tools to provide input, where appropriate, and use the output, when available.

The remediation of uncontrolled, hazardous waste sites is a technically complex process of long duration. The remedial project also is subject to many technical, economic, policy, and institutional constraints, and a number of responsibility transfers occur during the course of the project. The activities and deliverables of a Superfund hazardous site remediation project have been presented in Exhibit 1-1. Exhibit 2-1 provides an overview of the typical schedule, process constraints, and primary participants in a Superfund site remedial response. Because of the complexities, constraints, and numerous parties involved in a site remediation project, close project management and oversight are necessary for successful project completion.

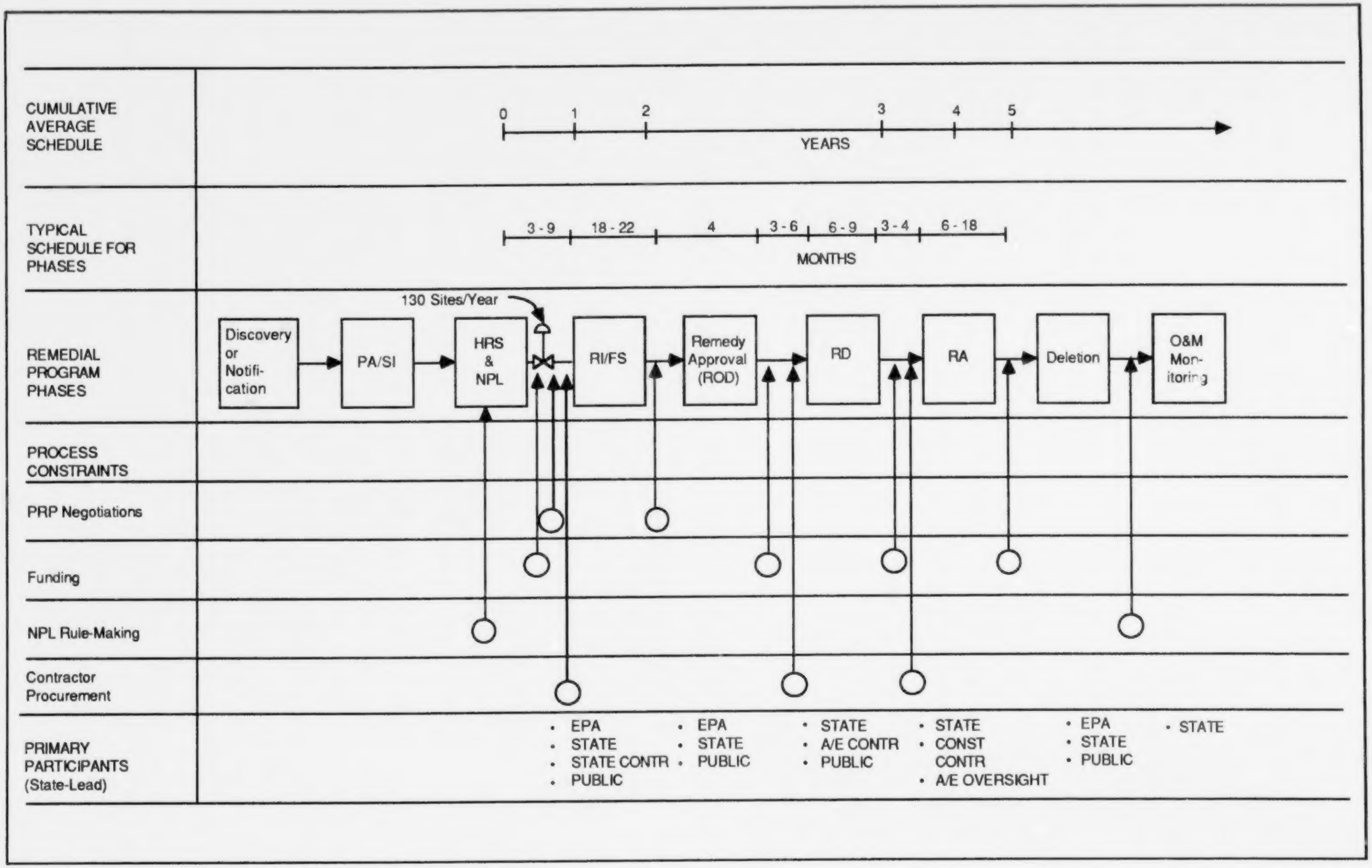
2.1 GENERAL PROJECT MANAGEMENT FUNCTIONS

Project management is the bringing together of individuals, institutions, firms, technologies, money, equipment, time and other resources in accordance with a plan, to achieve a set of objectives. Project management is accomplished most effectively by placing the responsibility for project success in the hands of a single individual, the project manager. The project manager is responsible for carrying out the various project management duties, including two key functions: (1) planning, monitoring, and control and (2) directing, coordinating, and communicating. The project manager carries out the management functions using approaches based on experience, supplemented by techniques such as scheduling, budgeting and reporting systems.

The project manager is held accountable for all aspects of the project but seldom has the compelling authority or the control over externalities to require that the project proceed according to plan. Thus, the RPM must develop a strong proactive approach to project management. The proactive approach is to look ahead, develop anticipatory actions and work-around strategies and modifications to work plans in order to accommodate the changes and problems that are certain to occur as the project progresses. The project manager needs to keep a clear vision of the final objective -- successful completion of the project on time and within budget -- without getting into a crisis-management mode. The successful project manager must be an organizer and a negotiator, have a knowledge of technologies, possess well-developed interpersonal skills, and, above all, view problems and setbacks as challenges to be overcome.

EXHIBIT 2-1

Remedial Process - Historical Timeframes



2.2 PROJECT PLANNING, MONITORING, AND CONTROL

Project planning is the process of identifying the scope, schedule, budget, and resources needed to achieve project objectives effectively. Monitoring and control are the observation of technical performance, comparing actual performance to that planned, and taking corrective action as needed. A number of project management functions are required to plan, monitor, and control project activities. Exhibit 2-2 presents the sequence of these functions which are described in the remainder of this section.

2.2.1 Planning

The elements of project planning are defined as follows:

- Establishing Scope -- Determining project objectives and identifying discrete tasks needed to achieve the objectives.
- Scheduling -- Identifying time frames for each task and the overall project.
- Budgeting -- Assigning costs to individual tasks and the total project.
- Organizing -- Arranging personnel and other resources to achieve the project objectives.

In each of the above elements, consideration must be given to funding/resource constraints that might affect project implementation.

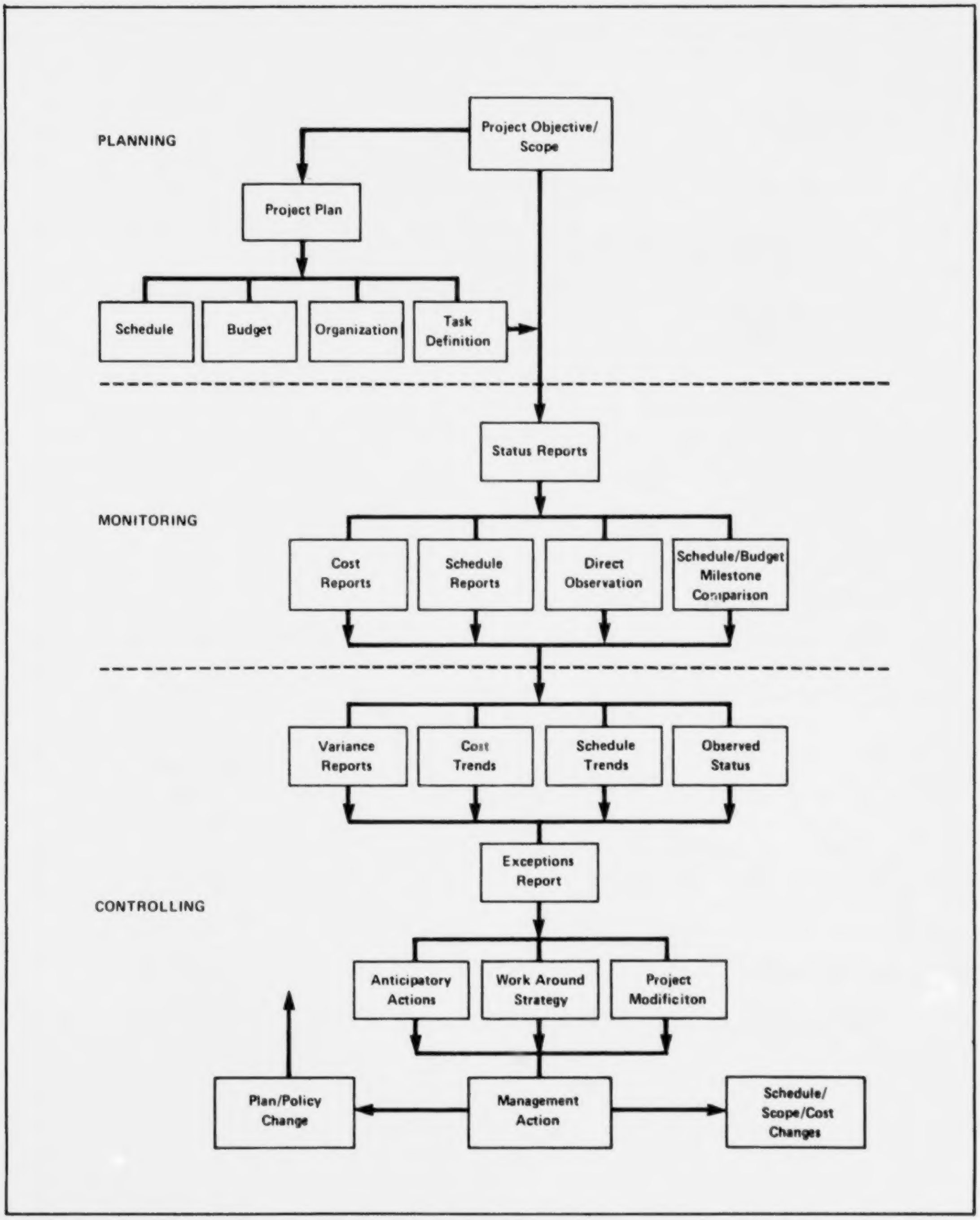
2.2.1.1 Establishing Scope

The RPM's role in project scope development is to determine the conceptual approach for the entire project to accomplish the ultimate goal of selecting and implementing the site remedy. The RPM provides direction to the State in identifying project objectives and constraints both during negotiations of the Cooperative Agreement (CA) application statement of work (SOW) and after the CA award, during development of contract documents. Following preparation of the SOW in the CA application and also later after the development of the detailed work plan by the State's contractor, the RPM reviews the defined scope, schedule, and budget to ensure their conformance with Superfund program requirements and Regional program goals. Each task in the work plan must be sufficiently detailed to convey an understanding of project goals to those responsible for performing the work and to provide the basis for project schedules and budgets.

2.2.1.2 Scheduling

Scheduling is a key component of planning, management, and control since establishing a realistic project schedule is an integral part of the RPM's responsibility to complete program targets [e.g., Record of Decision (ROD) approval, site cleanup] on time. The Superfund Amendments and Reauthorization Act of 1986 (SARA) impose mandatory schedules for starting new RI/FSs and remedial actions at NPL sites. Scheduling is necessary to anticipate when project resources such as funding or analytical support will be needed. It also allows projects to be scheduled to take advantage of external factors such as construction seasons. Depending on the size and complexity of the project, a variety of project scheduling systems may be used.

EXHIBIT 2-2
Sequence of Performance of Project Management Functions



These include milestone checks, bar charts, and critical path method diagrams. Each is discussed below.

- Milestone Charts -- Milestones are major events in the progress of a project and can be used as checkpoints to indicate whether the project is moving forward on schedule. Milestone charts identify the target completion date for each major activity. The milestone chart may include budget information, an indication of the responsible entity, and a means of comparing actual versus planned schedule results. The method is best for small, short-duration projects with few participants and little interrelationship between activities. The shortcoming of this tool is that it forecasts only completion dates. On complex projects, this may lead to uncertainty about when an activity should begin.

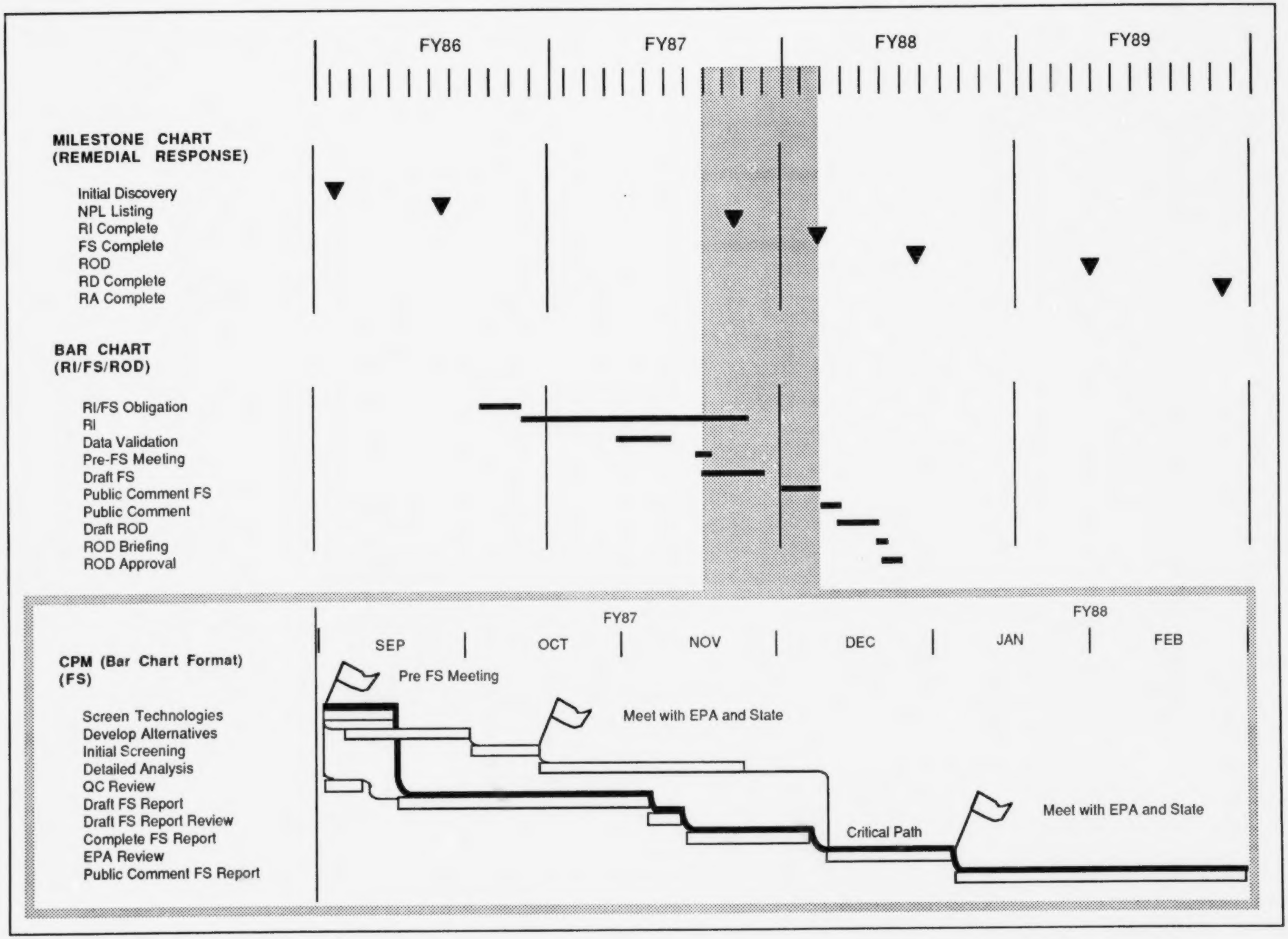
- Bar Charts -- This scheduling method is slightly more complex than milestone charting. The bar chart (often referred to as a Gantt chart) presents the list of activities along the left side with a sequence of horizontal bars denoting scheduled start and completion dates for each activity. The shortcoming of this method as a scheduling tool is that it does not completely reflect interrelationships among activities, nor does it indicate which activities are most critical to project completion. The bar chart is a frequently used scheduling method for the Remedial Investigation/Feasibility Study (RI/FS), Remedial Design (RD) and Remedial Action (RA) activities.

- Critical Path Method (CPM) Diagrams -- The critical path scheduling method overcomes some of the limitations of the bar chart method by integrating activity interrelationships and schedule. The method consists of systematically identifying all project task interrelationships using a task interface diagramming method. The duration of each task is then defined and the tasks are put in schedule form using either bar chart or network format. Finally, critical tasks are determined and the path between them is highlighted in the diagram. Determination of critical path by manual analysis is feasible on projects with less than 100 tasks. For projects with greater than 100 tasks, microcomputer CPM software packages are now available. While the major advantage of this method is the definition of task interrelationships and critical activities, the main disadvantage is that CPM diagrams are sometimes hard to read and time-consuming to update. They are, if properly maintained, a very good method to forecast upcoming tasks and can be used to make changes in work flow, thus avoiding slippage in the final completion date. Several RPMs are now using CPM for some sites.

All three of these techniques (or a combination) can be used in the Superfund remedial response process. Exhibit 2-3 provides an example of how each scheduling technique may be used. The milestone chart can indicate key events from site discovery through remedial action. This can provide a status summary of individual sites or can be combined to show status at a number of sites. The milestone chart can be used by the RPM and Regional management to indicate where sites are in the remedial response process at any point in time.

The bar chart generally is used to expand the level of detail provided by the milestone chart. For example, the RI/FS and ROD milestones can be expanded to show the timing and sequence of activities that the RPM must complete or track to

EXHIBIT 2-3
Scheduling Techniques



achieve program targets. This can provide a key scheduling tool for use by the RPM for management and control functions.

At the most detailed level of project planning, individual contractors may use CPM networks to schedule and control individual projects with large numbers of tasks. Contractors will use this technique to manage individual tasks at a greater level of detail than included in the bar chart. However, the key milestones identified by the RPM's bar chart should be included in the contractor's CPM. Exhibit 2-3 shows how the CPM could be applied to an FS project.

Taken together, the three scheduling techniques may result in an integrated site scheduling approach. The milestone chart sets the program objectives for a site which then can be incorporated in the increasingly detailed bar chart and CPM diagram. The level of detail for each technique is tailored to the intended use. RPMs (and Regions) can combine scheduling techniques to create a flexible scheduling system which allows the appropriate level of detail needed for efficient project management.

2.2.1.3 Budgeting

Budgets set the cost of the work outlined in the scope and schedule. Developing the project budget is a project-specific process that depends on the nature of the project and the organization executing it. Project budgets can be prepared by one of the following general methods:

- Top-Down Budgeting -- In this method, a pre-set total project budget is broken down into the individual task budgets. Top-down budgeting is most frequently applied to projects where funding availability is a major constraint, or the project tasks cannot be well defined prior to implementation. Estimates can be prepared using generic project costs or historical averages for similar projects. The advantage is that initial budgets do not need to include detailed information on all the project tasks, thus avoiding the need for detailed budget forecasts. This method is often the basis for cost estimates included in the Superfund Comprehensive Accomplishments Plan (SCAP). Disadvantages of this method are that it makes reliable monitoring and control difficult since detailed task budgets are not available, and it fails to examine project objectives to be certain the most effective project approach is being used.

- Task-Based Budgeting -- This method involves starting from "zero" to build individual task budgets. These are then summed to obtain the total project budget. Task-based budgeting is used when a predetermined budget has not been imposed. This requires a well defined project scope that can be divided into individual tasks. Two of the most common task-based budgeting techniques used are unit-price budgeting and staffing-level budgeting. Unit-price budgeting is commonly used in construction projects when quantities are reasonably well defined. A detailed estimate of component quantities is developed and multiplied by the unit price. Appropriate contingencies are added to obtain the total project budget. However, the need for detailed estimates of quantities makes this technique less suited for engineering studies.

> The staffing-level approach is often appropriate for more labor-intensive projects such as engineering studies. The approach involves estimating the labor hours required for each project task and then applying labor rates, overhead, and contingencies to obtain a total budget estimate.

The RPM must be familiar with both top-down and task-based budgeting techniques since they are used at different points in the Superfund program. Top-down budgeting is used for overall program planning to distribute the annual remedial response budget to individual RI/FS, RD, and RA projects. This is often accomplished by using standard budget numbers for the different project types. The actual budget found in the work plan for the RI/FS, on the other hand, is usually a staffing-level, task-based budget.

The RPM will need to project funding for future activities at a site. Since the entire remedial response program spans several years and is made up of numerous projects, the RPM will be asked to prepare budget estimates for out-year activities such as RD or RA. These estimates are subject to a number of uncertainties. For example, inflation rates can change and the actual remedy is often not known when the initial budget is estimated. The RPM should use historical cost data for these activities. Estimates can be refined as out-year activities approach.

2.2.1.4 Organizing

The method of organizing personnel and other resources to accomplish the project objectives is highly variable depending upon the type and size of the project and objectives to be accomplished. In most cases, a pyramidal hierarchy is the organizational form selected, with the project manager at its apex. This arrangement holds a single individual accountable for total project execution even though a large number of individuals may be directly responsible for the execution of specific project tasks. This requires a project manager who is willing to accomplish goals through delegation and requires an organizational structure with good channels of communication.

While many contractor project teams are organized in this traditional way, the RPM must operate within a different organizational structure. The RPM is the principal contact between EPA and the State. The RPM's management responsibilities involve working with a number of organizations within and outside of EPA. The RPM does not directly manage on-site activities, but must take an active role in site management by interpreting EPA policy and procedures as they apply to the site and by coordinating the participation of the numerous involved parties who may not communicate directly with each other. This role of the RPM as coordinator is defined later in this chapter.

2.2.2 Monitoring

The primary method for monitoring site project activity is the comparison of actual expenditures and events to the schedule and budget developed in the planning phase. This can be done by holding progress review meetings in conjunction with obtaining regular reports on project status so that the actual schedule and expenditures can be compared to the planned targets. These reports therefore must:

- Provide estimates of progress of each task toward its objective
- Estimate or detail project expenditures
- Determine the schedule status of each task
- Determine the budget status of each task
- Determine the overall schedule and budget status
- Assure actual expenditures have been properly reported and recorded.

Monitoring and reporting of Superfund project schedules can be conducted using bar chart, milestone, and CPM scheduling techniques. Since State contractors have wide latitude in the structure and detail of status reports prepared for States, RPMs should ensure that, at a minimum, the reports reflect key tasks and milestones.

Milestone scheduling is generally more suited for monitoring key remedial response activities that can be conducted independently of other activities. This method is more useful to monitor performance rather than to identify adverse schedule impacts as in the case with bar charts and CPM networks. For example, planned completion dates can be compared to actual dates and variances identified.

Bar charts and/or critical paths can be used when durations of sequential activities are related and delays in earlier tasks can impact follow-on tasks. The bar chart and CPM techniques help identify critical dates on related tasks that must be met in order to complete the overall project on schedule as required in the CA.

The RPM may use scheduling information in the short term to ensure that critical milestones of the current project are met (e.g., remedy approval). These techniques also can be used for long-term management by advising upper-level Regional managers of schedule delays that could affect schedule and budget decisions in follow-on work (e.g., RD & RA). However, the RPM should not substitute sceduling information for frequent personal contact with the State.

Monitoring and reporting of the budget status will depend upon the intended use of the information. The RPM generally will use the State's financial reports for two purposes: first, to ensure that a particular activity is being accomplished according to its overall schedule and within its budget ceiling, and second, to identify when budget variances occur that require additional project funding. This may result in a modification to the Regional SCAP. Techniques to control schedule and budget variances are discussed in the following sections.

In addition to the normal process of monitoring schedule and budget, the RPM must perform a variety of other monitoring functions, depending upon the phase of activity at a given site. Examples of events to be monitored include:

- Performance of the CA SOW; e.g., review of State/State contractor deliverables to ensure technical quality

- The State's design and construction contractor selection process

- Review of construction change orders.

This manual describes many of the monitoring and reporting methods by which the Agency and individual Regions track progress for specific site remedial activities and provide necessary management support and review of the work. These methods will not be restated here.

2.2.3 Control

Trend analysis allows the project manager to gauge the importance of variances that are identified from the schedule and budget reports obtained through monitoring activities. Study of schedule and budget trends, in addition to direct observations of project performance, can be highly informative, particularly where update reports on schedule and budget are available on a regular basis. Changes in cash flow trends as a function of time, a steady deterioration in schedule status or deliverable quality, and negative trends in progress toward completion with coincident higher than planned cash flow are indicators of problems.

Project progress meetings on project deliverables and schedule and budget reports can identify variances from the plan that are either long-term trends or immediate events. The process by which the project manager responds to a particular management issue will vary based on the nature of the problem. Control is by definition a proactive, rather than passive process (as is monitoring). The RPM must actively deal with factors that may adversely affect achievement of task or overall project objectives.

The RPM can avoid or control variances by taking preventive or corrective actions. The three basic types of actions may be summarized as follows:

- Anticipatory Actions -- Modify external factors in such a manner that project variances do not occur

- Work-Around Strategies -- Respond to an existing negative variance, usually schedule or budget, to accommodate changes, but at no impact to the overall project plan

- Plan Modifications -- Accommodate variances by altering project budget, schedule, or scope.

  (Note: Anticipatory actions and work-around strategies are generally preferred to plan modifications.)

Control measures the RPM may take usually involve one or more of the actions cited above. The following are a few examples of such measures:

Anticipatory Actions

- Request remedial planning (REM) contractor or U.S. Army Corps of Engineers (USACE) assistance for review of design documents prepared by the State's contractor

- Limit document reviews to essential parties and maintain strict review schedules

- Closely coordinate analytical needs with Contract Laboratory Program (CLP) capacity

- Increase direct observation of field activity to ensure program requirements are being met and avoid otherwise unnecessary field efforts

- Be aware of upcoming project milestones and associated EPA and community reviews.

Work-Around Strategies

- Use additional laboratory support to ensure timely turn-around of sample data
- Reduce sampling efforts
- Initiate FS analysis using unvalidated data
- Delete an operable unit
- Streamline requirements for State work products to avoid repetition of data or other information.

Plan Modifications

- Execute CA amendments to adjust budget or schedule resulting from major work scope changes
- Revise the SCAP for subsequent funding
- Revise the milestone or bar chart schedule (e.g., delay RD/RA one construction season)
- Revise critical path endpoints or schedule milestones for a specific project plan.

Exhibit 2-2 shows the relationship of project planning, monitoring, and controlling functions. As the exhibit illustrates, the functions are interrelated and all must be employed to achieve effective project management. Each involves techniques applied at various stages in the project execution. However, the final areas of RPM responsibility to be discussed -- directing/coordinating/communicating -- continue throughout all project stages.

2.3 DIRECTING/COORDINATING/COMMUNICATING

As a general rule, the larger the project budget, the more important is the coordinating and communicating function of the project manager. The RPM needs to coordinate project activities at several levels. It is necessary to coordinate internally with programs such as Environmental Services Division to provide analytical data reviews, and Resource Conservation and Recovery Act and Toxic Substance Control Act to assure compliance with appropriate environmental laws and requirements. Without this input at the appropriate times, project delays could occur. Close coordination between the RPM and State/State contractor also is needed to ensure that project objectives are being met. Such coordination will help the RPM, State, and State's contractor to identify and correct problems before they adversely impact the project. Finally, the RPM needs to ensure that the State and State's contractor are aware of all current program requirements and policies in order to avoid misunderstandings and delays. By keeping the State fully informed, the RPM can increase the likelihood of prompt EPA reviews at various project decision points.

Communication among the RPMs within the Agency also is extremely important. Innovative solutions to complex problems have been developed through experience at various sites. RPMs should learn from these experiences by communicating with other RPMs (both within and outside one's Region) and Headquarters staff to avoid or anticipate similar problems.

Since a large portion of the work is being done by private contractors who are not always current on all program policies and goals, the coordinating and communicating skills of the RPM are a major factor in project success.

The unique problems associated with Superfund sites require the RPM to play a key role in ensuring project quality. The RPM is the single EPA individual responsible for directing the State in a number of technical and policy areas. The RPM should be knowledgeable in the following ares in order to ensure the technical quality of site-related work:

- Sampling and analysis of contaminated media
- Environmental fate and transport analysis
- Risk and exposure assessment
- Evaluations of remedial technologies
- Environmental impact evaluation
- Cost estimation
- RD and RA considerations.

In addition to these technical areas, the RPM should be familiar with environmental regulations and policies that will affect how the technical disciplines are applied to a particular site. By integrating technical, regulatory, and policy areas, the RPM can provide adequate quality assurance review of project activities and can be effective in their directing, coordinating, and communicating role.

ADDITIONAL SOURCES OF INFORMATION

Burstein, David and Frank Stasiowski, Project Management for the Design Professional, Whitney Library of Design, 1982.

Cleland, David, I. and William R. King, ed., Project Management Handbook, Van Nostrand Reinhold Company, New York, 1983.

Cleland, David, I. and William R. King, Systems Analysis and Project Management, McGraw Hill, New York, 1983.

Drucker, Peter, F., Management Tasks, Responsibilities, Practices, Harper and Row, New York, 1974.

Hall, P., Great Planning Disasters, Weidenfeld and Nicholson, London, 1980.

Kast, F.E. and J.E. Rosenweig, Organization and Management. A Systems Approach, McGraw Hill, New York, 1970.

Ruskin, A.M. and W.E. Estes, What Every Engineer Should Know About Project Management, Marcel Dekker, 1982.

Souder, W.E., Management Decision Methods for Managers of Engineering and Research, Van Nostrand Reinhold Company, New York, 1980.

Struckenbruck, Linn, C., The Implementation of Project Management. The Professional's Handbook, Addison Wesley Inc., 1981.

3. INITIAL PROJECT PLANNING AND START-UP ACTIVITIES

An important focus of this chapter is project planning and its relationship to monitoring and control. This chapter generally addresses activities to be performed prior to and during the early stages of the remedial investigation/feasibility study (RI/FS). It is divided into seven major sections:

- Development of a Site Management Plan
- Planning activities required prior to starting a State-lead remedial project
- RI scoping and development of general response objectives
- Development and execution of a Cooperative Agreement (CA)
- Oversight of the CA
- State procurement under a Superfund CA
- Work plan review and approval.

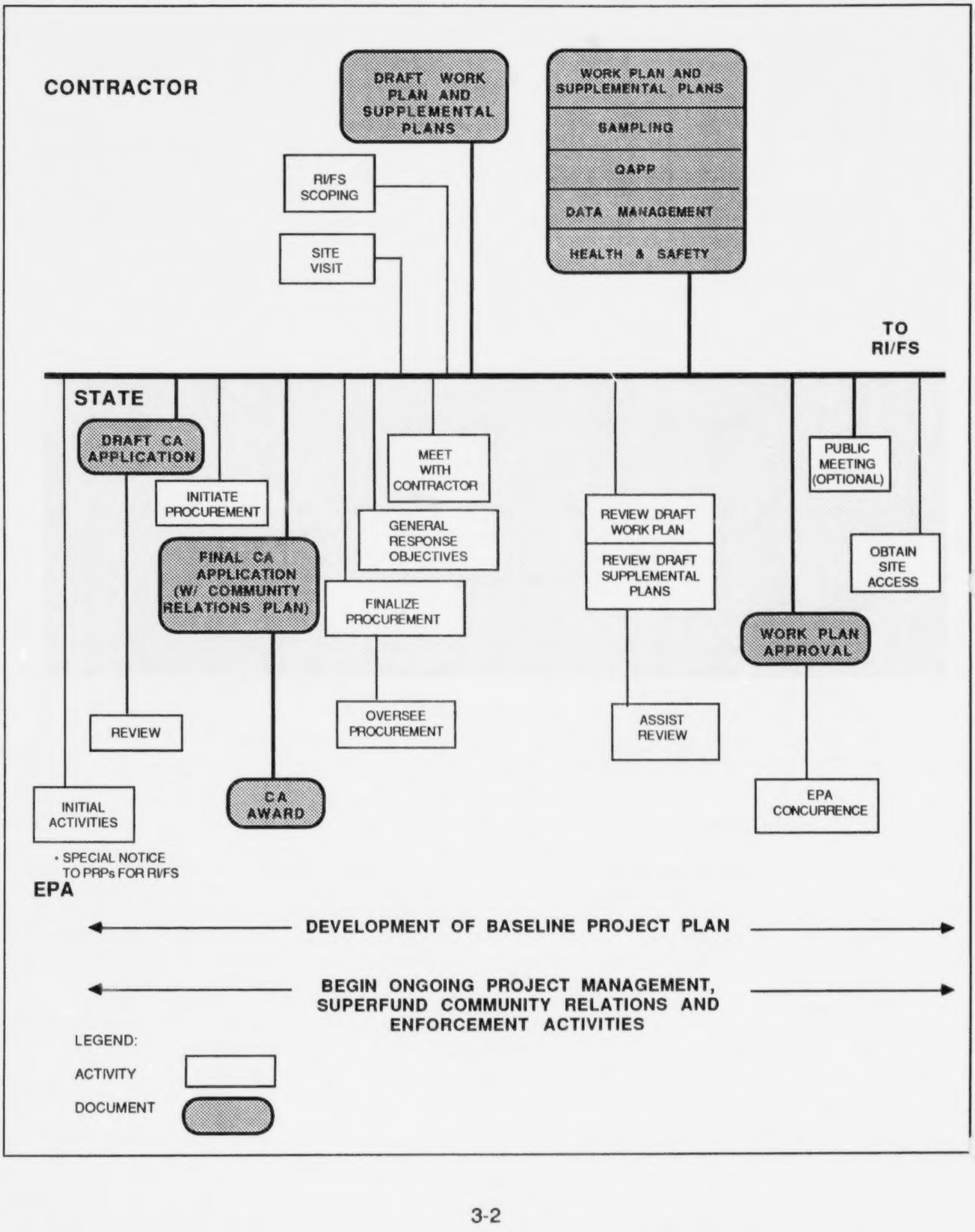
Exhibit 3-1 illustrates the activities which occur during the project planning and start-up phase of a remedial response. The top one-third of the diagram represents those activities which are the responsibility of the remedial contractor; the middle one-third those that are the responsibility of the State; and the bottom one-third those that are the responsibility of EPA.

This chapter is intended to highlight specific activities which the RPM must accomplish or coordinate in order to start up a remedial project. The RPM should regard each remedial site assignment as a long-term comprehensive project management responsibility. The RPM must assume an active planning/management/oversight role early in the initiation of each project and maintain this role throughout the multi-year remedial response.

3.1 DEVELOPMENT OF PROJECT PLAN

A Site Management or Project Plan should be developed which describes the activities, schedule, and budget necessary to accomplish the timely and cost-effective clean-up of the hazardous waste site. Its careful development requires that appropriate consideration be given to the range of needs and possible problems which will be encountered in performing remediation. Once prepared, it provides a means to monitor progress and exert control as clean-up proceeds. Its use can promote EPA and State efficiency through better projection of resource needs, provide a baseline by which progress is monitored, and increase RPM and SPO effectiveness by allowing site managers to focus jointly on accomplishing milestones along the project's critical path. Regions have been encouraged to develop and use site-specific Site Management Plans in the past.

EXHIBIT 3-1
Initial Project planning and Start-up Activities


CONTRACTOR
DRAFT WORK PLAN AND SUPPLEMENTAL PLANS
WORK PLAN AND SUPPLEMENTAL PLANS
SAMPLING
QAPP
DATA MANAGEMENT
HEALTH & SAFETY
RI/FS SCOPING
SITE VISIT
TO RI/FS
STATE
DRAFT CA APPLICATION
INITIATE PROCUREMENT
MEET WITH CONTRACTOR
GENERAL RESPONSE OBJECTIVES
FINAL CA APPLICATION (W/ COMMUNITY RELATIONS PLAN)
FINALIZE PROCUREMENT
REVIEW DRAFT WORK PLAN
REVIEW DRAFT SUPPLEMENTAL PLANS
PUBLIC MEETING (OPTIONAL)
OBTAIN SITE ACCESS
WORK PLAN APPROVAL
REVIEW
OVERSEE PROCUREMENT
ASSIST REVIEW
CA AWARD
INITIAL ACTIVITIES
EPA CONCURRENCE
• SPECIAL NOTICE TO PRPs FOR RI/FS
EPA
DEVELOPMENT OF BASELINE PROJECT PLAN
BEGIN ONGOING PROJECT MANAGEMENT, SUPERFUND COMMUNITY RELATIONS AND ENFORCEMENT ACTIVITIES
LEGEND:
ACTIVITY
DOCUMENT

A Project Plan generally scopes out the entire remedial process as one project: RI/FS, design, construction, and operation and maintenance. The Project Plan should be a management tool which ties the scope, budget, and schedule of all of these activities together.

The Project Plan should be considered a working document that can be modified to respond to changing project and program management needs. The Plan provides an initial baseline against which progress is monitored. Analysis of the results of project monitoring leads to actions (controls) which can include revision of the Project Plan. Revisions to the Project Plan should occur often enough to reflect changed needs and circumstances, but not so frequently so as to cause the Plan to lose its application as a project baseline. During the execution of site work, a Project Plan should be updated for any one of the following reasons:

- Significant new information necessitates a change in the scope, schedule, or cost of an individual project site

- Scope, schedule, or cost vary significantly from the plan

- A key milestone is reached in the site project schedule.

Two additional general points should be considered when developing a Project Plan. First, a Plan is only a means to assist in obtaining two ultimate objectives: 1) the timely remediation of a hazardous waste site at reasonable cost and 2) successful Regional and national remedial program management. Second, the simpler the planning tool is to use, the more useful it will be during the project.

Each site has unique objectives and circumstances and a Project Plan should reflect this. The format of a Project Plan can vary from the completely narrative to a collection of diagrams and tables, or a mixture of the two. The basic organizational structure of the project, the project objectives, the delineation of responsibility between involved parties, and other items might best be put in brief narrative form with diagrams. These items tend to change less during the course of the project. Items which change more frequently such as project schedules, milestones, and budget figures are more appropriately put in a data base format for ease of manipulation. The data base format should be the same for all remedial projects within a Region in order to allow the site-specific information to be combined into program planning reports.

The Project Plan should reflect major goals, milestones, and constraints imposed on the whole site remedial project through operation and maintenance. When first developed, prior to initiation of the RI/FS, the Plan will be relatively generic. However, it should be based on the best available estimate of the activities and resources necessary to complete the site work. Once the baseline Plan is developed, the routine reporting format should match the plan format so that over time each significant variance from the Plan can be easily identified and analyzed by the RPM, SPO and other managers. Management must then conclude one of two things: 1) the project conditions have changed such that the baseline Project Plan needs to be modified; or 2) steps can be taken to respond to the factors causing the variance such that conformance to the baseline Plan can be reestablished in the future.

The baseline Project Plan developed by the RPM, SPO and State contractors for a State-lead project is an essential planning and management tool. A first cut at the baseline Project Plan should be developed by the RPM as one of the first responsibilities of a site manager. This draft Plan should reflect EPA's general program goals for planning/scheduling. After the RPM and SPO have established a working relationship and have discussed the site project more specifically, the draft baseline Project Plan can be further developed to be consistent with State planning/scheduling needs. The baseline Project Plan should not be finalized until the State's contractor has been selected and has had the opportunity for input and commitment to the Plan. This is necessary if the Project Plan is to be truly useful as a communication link between the EPA managers, the RPM, SPO and project contractors. All parties must recognize that the agreed upon baseline Project Plan for each site will be used by EPA management not only for major project decisions, but also the Plan will provide input into the Agency's data base used for overall remedial program planning, scheduling and funding decisions.

The Project Plan should be routinely reviewed, probably no less often than every three months, to ensure that the most recent data are being used. Major updates/revisions to the Plan would be necessary as each individual activity nears completion and a detailed schedule for the next activity is developed. Schedules for each separate activity must be realistic but should be consistent with the baseline Plan (schedule) for the entire remedial project. To the extent possible, delays during individual activities should not be allowed to impact the entire project schedule. The RPM should make every effort to maintain schedules leading up to the construction phase, because undue delays during remedial planning activities can easily result in the loss of an entire construction season. It is equally important to maintain construction schedules where slippages can result in significant cost overruns.

3.2 PLANNING ACTIVITIES REQUIRED PRIOR TO STARTING A REMEDIAL PROJECT

Prior to or concurrent with the development of a CA application package for a RI/FS, there are several preliminary activities in which the RPM may become involved. These are activities the RPM should initiate as soon as possible after being assigned to a State-lead remedial project. These activities may vary depending on the remedial activity to be funded under a CA; they include the following:

- Establish a working relationship with State, especially the SPO
- Coordinate activities with enforcement/cost recovery staff
- Provide input to the Superfund Comprehensive Accomplishments Plan
- Ensure that the State obtains site access
- Provide information to State officials on intergovernmental review requirements or refer State officials to Regional Grants Office for assistance
- Provide information and assistance to State officials on credit claim submission requirements
- Coordinate with community relations staff.

This section will discuss the RPM's specific responsibilities for each of these initial activities. Exhibit 3-2, on the following pages, summarizes these responsibilities.

EXHIBIT 3-2
Initial Activities

ACTIVITY	RPM RESPONSIBILITIES	REFERENCES
1. Establishment of a working relationship with the State Project Officer (SPO) and other State personnel	• Meeting with the SPO to discuss the site and EPA's remedial process • Sharing EPA background information on the site with State • Assessing the level of RPM involvement required for ensuring that the project is conducted in accordance with all relevant statutes, regulations and policies	
2. Coordination of activities with enforcement/cost recovery staff	• Sharing information about responsible parties with State and EPA enforcement staff to determine the viability of an enforcement action. May include early identification of responsible parties and issuance of special notice to PRPs for negotiations moratorium • Establishing site files and documenting all steps taken during the remedial response to support any future cost recovery actions • Working closely with the State to inform the SPO of the provisions regarding enforcement cost recovery,and responsibilities for providing evidence, documentation, and expert witnesses	• *CERCLA Enforcement Attorney's Manual*, April 1984 • *"Timely Initiation of Responsible Party Searches, Issuance of Notice Letters, and Release of Information,"* October 9, 1985 • *State Manual*, Appendix U • *"Procedures for Documenting Costs for CERCLA §107 Actions,"* January 20, 1985 *
3. Coordination with community relations staff	• Assisting the SPO in developing the community relations plan, if requested • Maintaining documentation on community relations activities and approvals • Monitoring development of the community relations plan to ensure its timely preparation	• *Community Relations in Superfund: A Handbook*, September 1983 (under revision)
4. Review of the Superfund Comprehensive Accomplishments Plan (SCAP)	• Ensuring that the proposed project is accurately listed on the SCAP	• See current year SCAP

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* See end of chapter for additional Enforcement-related references.

EXHIBIT 3-2
Initial Activities (Continued)

ACTIVITY	RPM RESPONSIBILITIES	REFERENCES
5. Obtaining site access and permits	• Supporting the State in obtaining site access and permits - Identifying all permits that may be required (e.g., drilling permits) - Meeting with State representative to discuss strategies - Obtaining legal advice from the Office of Regional Counsel • Forseeing project delays and added costs atrributable to limited site access or permit problems	
6. Provision of information to State officials on intergovernmental review requirements	• Ensuring that the SPO initiates the review process early • Ensuring that the SPO notifies the single point of contact for the proposed project at least one quarter prior to anticipated obligation of funds • Responding to intergovernmental review comments, if appropriate	• E.O. 12372 • *State Manual*, Appendix D
7. Provision of information and assistance to State officials on credit claim submission requirements	• Making the SPO aware of the criteria by which past expenditures will be judged as creditable • Assisting the SPO in developing the States's credit claim submission	• *State Manual*, Appendix C.

3.2.1 Establishment of Working Relationships with State Personnel

As soon as possible after being assigned to a State-lead remedial response site, the RPM should contact the appropriate State officials to discuss the site and EPA's remedial program processes. The State generally will assign an SPO who manages the remedial response conducted under a CA. Usually, the RPM and SPO hold a meeting to discuss plans of action and to delineate each party's expected roles and responsibilities. At this time, the RPM should make an initial assessment of the level of involvement necessary to ensure that the remedial project is conducted in accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*, November 20, 1985, EPA Superfund policies, and other Federal regulations.

It may be appropriate during early meetings to exchange and review information on the site. This may include Preliminary Assessment/Site Inspection (PA/SI) and Hazard Ranking System (HRS) reports. If the State is becoming involved at a later stage in the remedial response sequence, other documents are more appropriate. The RPM also should arrange to conduct a site visit with the SPO. It is critical that the RPM meet with the SPO and other State officials to discuss and describe the RPM's roles and responsibilities during a State-lead response. Early discussion with State representatives should provide the basis for conducting a long-term project that is a cooperative, coordinated, mutual State/EPA accomplishment.

The Superfund Amendments provide broad based authority and an extensive list of requirements for State involvement in every phase of the Superfund program. EPA will be developing regulations concerning State involvement that will provide for:

- Participation in long-term planning for all remedial actions in a State
- Reasonable opportunity to review and comment on planning documents, technical data, engineering designs, or proposed findings and decisions to waive requirements
- Notification of an opportunity for participation in negotiations with potentially responsible parties (PRPs)
- Notification of and opportunity for comment on the proposed plan for remedial action and other plans under consideration
- Concurrence on deleting sites from the NPL.

3.2.2 Coordination of Activities with Enforcement/Cost Recovery Staff

The RPM is responsible for assisting in the development of enforcement and cost recovery actions against PRPs. This involves four major activities:

- Sharing information about PRPs with State and EPA enforcement staff to determine the viability of an enforcement action
- Issuing special notice to PRPs thereby initiating the 60/90-day RI/FS negotiations moratorium

- Establishing site files and documenting all steps taken during the remedial response to support any future cost recovery actions

- Working closely with the State to make sure that the SPO is aware of the provisions concerning enforcement, cost recovery, and responsibilities for providing evidence, documentation, and expert witnesses (State personnel may be asked to appear in court or to give depositions).

The RPM should contact enforcement staff in the Region and in the State as early as possible in the remedial planning process to offer assistance in identifying PRPs (preferably during the development of sites for the NPL listing). The RPM should provide any relevant information on the site which may be of use in encouraging responsible parties to conduct the RI/FS. The RPM also should be prepared to provide technical assistance in the issuance of notice letters to PRPs, if requested by enforcement staff. The RPM should refer to the memoranda entitled "*Procedures for Issuing Notice Letters,*" OWPE, October 12, 1984, and "*Timely Issuance of Responsible Party Searches, Issuance of Notice Letters, and Release of Information,*" OWPE, October 9, 1985 for detailed explanation of these enforcement requirements. The Office of Regional Counsel (ORC) should be alerted when funds have been allocated on the SCAP for a site. At this time the RPM should inform the ORC of any known issues to ensure the availability of necessary legal advice and judgment concerning the site.

Under SARA, EPA may issue "special notice" if it determines that negotiations would facilitate an agreement with PRPs to either undertake or finance an RI/FS. EPA also must provide notice to the State of negotiations with PRPs and provide an opportunity for State participation in the negotiations. Upon receipt, PRPs have 60 days to submit a proposal to undertake or finance the RI/FS. During this period, EPA may not initiate the RI/FS. If PRPs do not submit a good faith proposal within this time, EPA may proceed with the RI/FS. If PRPs do submit a good faith proposal within 60 days of notice, the moratorium continues until 90 days past the date of notice while EPA evaluates the proposal. This enforcement negotiations moratorium must be completed prior to award of a Cooperative Agreement with the State for RI/FS.

The collection and maintenance of proper documentation is critically important to the development and implementation of a successful enforcement or cost recovery action. In general, high quality, well-organized site files also are essential for successful project management. Potential evidence concerning the site and responsible parties must be noted and documented before the response activity or the passage of time may obscure or destroy it. Physical evidence essential at trial must be collected and preserved appropriately. The RPM should make sure that the SPO is aware of the provisions regarding enforcement, cost recovery, and the State's responsibilities for providing evidence and documentation.

The RPM should remind the SPO that in accordance with 40 CFR Part 30, EPA's general assistance regulation, a State entering into a CA must maintain a file containing all relevant documents and communications pertaining to the development and implementation of that Agreement. These records should include such site-specific documentation as ledgers, purchasing and contracting files, receipts, vouchers, travel authorizations, and equipment costs and usage. Records must be maintained intact for three years after submission of the final Financial Status Report (SF-269) or until any litigation, claim, appeal, or audit begun during that three-year period has been settled. For further information on documentation requirements see Appendix U of the *State Manual.*

The RPM also should remind the SPO that proper chain-of-custody procedures must be followed. These procedures are summarized in the following chapter on RI/FS and are fully described in the *National Enforcement Investigation Center (NEIC) Policies and Procedures Manual*, May 1978 (revised 1985).

As EPA develops its enforcement strategy for a site, the RPM should ensure that sufficient coordination among participants is exercised.

3.2.3 Input to Superfund Comprehensive Accomplishments Plan (SCAP)

The SCAP is an EPA management plan which lists site-specific Superfund financial allocations for each fiscal year. Prior to the beginning of a fiscal year, each Region must draft and submit a site-specific list (with the exception of pre-remedial activities which are not funded site-specifically) of removal, remedial, and enforcement activities, schedules, and estimated costs; pending final Headquarters review and approval, these are included in the integrated SCAP for the upcoming fiscal year. RPMs should become familiar with the current year's SCAP implementation plan and any related memoranda providing information on SCAP development.

The draft SCAP goes through a series of Regional and Headquarters reviews and revisions before finally being approved by the Assistant Administrator for the Office of Solid Waste and Emergency Response (AA/OSWER). An important responsibility of the RPM is providing site-specific activity and financial information and schedules to the Regional representative who compiles, adjusts, and amends the SCAP.

It is important for the RPM to make sure the project currently being planned is consistent with the SCAP. If the SCAP does not reflect project needs, the RPM is responsible for initiating SCAP adjustments and/or amendments. Adjustments are modifications to the SCAP which neither alter the number of activities originally set forth nor exceed the Regional allowance (e.g., replacing one RI/FS with another of equal magnitude). Amendments are modifications that increase or decrease the "new starts" targets or exceed the Regional quarterly allowance. Generally, the RPM will work with the Regional SCAP contact to accomplish SCAP changes.

3.2.4 Obtaining Site Access

Obtaining site access for remedial planning activities is a critical path activity that should begin as early as possible. The State is responsible for obtaining site access; however, the RPM should be prepared to assist the State in this effort. The RPM should encourage the SPO to identify specific site access requirements and to develop a strategy and a schedule for obtaining access that will not delay field work start-up for the RI/FS. Access, even when obtained, may be restricted. For example, access for field work near a highly traveled roadway may be allowed only during non-peak traffic hours. The RPM and SPO must consider the impact of any access restrictions on schedules and budgets.

Site access may be difficult to obtain in some cases. The SPO should consult with State legal officials to determine the appropriate approach or mechanism to obtain site access. If voluntary access cannot be obtained, the State must use all its available legal authorities to obtain site access before EPA will consider taking legal actions under its authorities. The RPM should coordinate closely with the SPO if disputes arise regarding site access. The Superfund Amendments generally strengthen EPA's ability to obtain site access. The RPM should consult with ORC and the HSCD Regional Coordinator for assistance and current policy guidance on site access issues.

3.2.5 Provision of Information to State Officials on Intergovernmental Review Requirements - Executive Order 12372

One of the requirements of any Federally funded project is that the project must undergo intergovernmental review prior to obligation of funds (in this case award of the CA or Multi-Site Cooperative Agreement (MSCA)). The regulation that implements Executive Order (E.O.) 12372 is *Intergovernmental Review of EPA Programs and Activities* (40 CFR Part 29). The intent of the E.O. and the supporting regulation is to increase Federal responsiveness to State and local entities and to ensure full consideration of their concerns in decision-making on proposed financial assistance and direct Federal development projects. Appendix D of the *State Manual* provides information on the specific Superfund requirements for intergovernmental review.

The E.O. and EPA's regulation allow most EPA assisted projects within a State's borders to be reviewed by procedures established by that State. The State may choose to include that activity under its intergovernmental review process or may choose not to do so. Thus, there are basically two sets of intergovernmental review procedures that the RPM must follow: one to be followed when the State has established a formal review process to include the Superfund activity in question, and one when it has not.

In either case, the RPM must be particularly concerned with the following elements of intergovernmental review:

- Knowing who is the State's single point of contact (SPOC)* and becoming familiar with State review procedures
- Ensuring that the State has formally notified the designated SPOC (if one has been established) at least one quarter prior to the RI/FS obligation date identified in the SCAP
- Accommodating intergovernmental concerns. This means that EPA must do one of the following:
    - Accept the official State process recommendation, or
    - Reach a mutually agreeable solution, or
    - Provide the SPOC with a written explanation for not implementing the recommendation.

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* A person who will act as a conduit for transmitting review comments and other relevant information between the State and EPA.

In the last case, the RPM must prepare a letter for the Regional Administrator's (RA) signature, informing the SPOC of the reasons for the non-accommodation; a copy of each non-accommodation should be sent to the Chief, Grants Policy and Procedure Branch (PM-216), Grants Administration Division, EPA, Washington,, D.C. 20460, (202) 382-5268. If the situation is controversial, the RPM must consult with this Branch Chief before taking action.

The RPM must include the following materials pertaining to the review in the CA application package:

- A dated copy of the letter notifying the SPOC of a proposed remedial project.
- A copy of the State recommendation (if any), and the RA's response to the SPOC, if the recommendation differs from EPA's proposed action.
- Any other letters commenting on EPA's proposed action including opinions of reviewers differing from the State's application.

The RPM also is responsible for summarizing the results of the intergovernmental review in the Decision Memorandum which is prepared as part of the concurrence package for each CA application.

For several projects funded under a MSCA, a single notification letter will be sufficient. The letter should include site names, locations, and an individual summary of the problems at each site.*

3.2.6 Provision of Information and Assistance to State Officials on State Credit Claims Requirements

Based on the provisions of CERCLA section 104(c)(3)(C), EPA will grant States a credit against their share of costs under a CA for certain previous State expenditures made between January 1, 1978, and December 11, 1980. Under SARA, the State also may be eligible for credit for work performed between December 11, 1980 and October 17, 1986. If the State had an agreement in place with EPA, and expenses were incurred at an NPL site owned, but not operated by the State, amounts above the 10 percent cost share may be creditable. The RPM is responsible for making the SPO aware of the criteria by which past expenditures will be judged as creditable and may assist the SPO in developing the State's credit claim submission. The RPM should encourage the State to initiate this process early since the review and audit procedures may be lengthy. See Appendix C of the *State Manual* for further information on credit claim procedures.

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* This is only true for RI/FS and pre-remedial activities in an MSCA. Separate notifications are required for each site undergoing remedial design and construction. See Appendix D, of the *State Manual.*

3.2.7 Coordination with Community Relations Staff

A community relations plan (CRP) is developed in order to document planned community relations activities. The CRP should be developed and submitted with the State's final CA application. The CRP must be approved prior to the initiation of on-site RI activities. This should be done as soon as possible in order to avoid delays in the start of site work. For State-lead sites, the CRP usually is developed by the State in coordination with other interested agencies. It is extremely important that the RPM closely monitor development of the CRP to ensure that it is prepared in a timely manner; if this is not done, initiation of on-site activities may be delayed unnecessarily. To ensure that the CRP is timely and adequate, the RPM may assist the SPO in developing the CRP, if requested, working closely with the Regional Superfund Community Relations Coordinator (RSCRC). The RPM also should offer the SPO the option of obtaining EPA contract assistance in developing the CRP. The RPM should inform the SPO that the State may prepare a generic CRP for all remedial activities to be carried out by the State under a MSCA application only when similar actions are comtemplated (e.g., RI/FS at three sites). However, a site secific CRP must be in place before field work may commence. The RPM may draw from such resources as the RSCRC, other Regional community relations staff, and the *Community Relations in Superfund: A Handbook,* September 1983, in order to assist the State.

Approval of the CRP is the joint responsibility of the RPM and the Regional community relations staff. The RPM should be sure to include documentation of the CRP approval in the site file. Field activities at a site may not begin until EPA has approved the CRP.

3.3 REMEDIAL INVESTIGATION SCOPING AND DEVELOPMENT OF GENERAL RESPONSE OBJECTIVES

Prior to developing work plans and conducting the RI/FS there are two crucial steps that shape the execution of subsequent project planning and RI/FS activities:

- RI Scoping -- involves the collection and analysis of existing site information; this sets the basis for developing the RI sampling plan to address outstanding data needs (such as data required to characterize the site and corresponding risks or threat of risks; and those needed to evaluate alternative remedial actions)

- General Response Objectives -- or classes of response, should be identified in order to expedite and focus the scope of the RI/FS.

Each of the activities is discussed in the *NCP* and described in detail in:

- *Guidance on Remedial Investigations Under CERCLA*, June 1985

- *Guidance on Feasibility Studies Under CERCLA*, June 1985.

These documents will hereafter be referred to as the *RI Guidance* and the *FS Guidance,* respectively.

At this time, the RPM should begin to evaluate whether certain activities or phases of the site response action could be undertaken using either remedial or removal program resources. Revisions to the *NCP* redefine the response categories of "removal actions" and "remedial actions." Removals now include all activities formerly called immediate removals, planned removals, and initial remedial measures (IRMs). Despite the changes in the *NCP*, most response actions will continue to fall into discrete programmatic areas. However, some activities or phases, such as IRM-type removals or certain other removal actions, can be conducted using either remedial or removal program resources. Early in the planning process, the RPM should identify site-specific clean-up situations that may overlap traditional program boundaries. In these situations, Regional program managers must assign program responsibility on a case-by-case basis. The RPM should raise these situations to the proper Regional managers so timely management decisions may be made. Additional information on removal/remedial program integration is given in section 4.2 of this manual.

During RI scoping, the RPM and SPO jointly should try to identify operable units (discrete parts of the entire response consistent with a final remedy) and the remedial technologies most likely to be applicable, and should work with the State's contractor to ensure that the RI sampling events are sufficient to support evaluation of these technologies during the FS.

RI scoping is conducted by the State with assistance by the RPM. The RPM should ensure that the State receives (or reviews) all relevant site information available in EPA's files. This may include:

- PA/SI data
- Technical Assistance Team (TAT) information
- Emergency response removal action data
- Contractor files
- Site files.

The RPM also should inform the SPO of EPA's schedule requirements and the site's enforcement status, which may affect sample analysis techniques. In addition, the RPM may want to review RI scoping outputs such as:

- Site description and boundaries
- Site history
- Chronology of significant events
- Site maps.

The RPM must have an understanding of the site in order to assist the SPO during RI scoping.

Based on preliminary site information, the RPM and SPO should identify general response objectives, or classes of response, without necessarily identifying specific technologies. Examples of general response objectives include the following:

- Source Control
- Management of Migration
- Removal.

A more extensive list of general response classes is provided in the *FS Guidance*. The general response objectives identified will shape the objectives of the RI site characterization and the evaluation of remedial alternatives.

Early in the remedial program, the RI/FS was often planned and executed as a series of steps -- first the development of the site-specific work plan, followed by the RI, and then the FS -- usually with a single sampling event. This approach sometimes resulted in a RI that was not sufficient to support the FS, causing delays and poor project management. As a result, the RI/FS process now is evolving into a closed loop approach, where the anticipated data needs of the FS are considered in the RI scoping. The anticipated FS data requirements may be approximated by an early screening of alternatives. This approach is further described in the *RI Guidance* and *FS Guidance*.

EPA is evaluating methods to streamline the RI/FS and to improve its technical quality. These potential methods include a greater focus on early alternative screening; initiation of multiple sampling events, each of which will provide feedback to continuous RI scoping; and use of additional analytical alternatives, such as field screening. These modifications are identified as the phased RI/FS approach.

The key elements of a phased RI/FS include:

- RI focus on obtaining only data necessary to fulfill requirements of the FS and Record of Decision (ROD)
- Early screening of remedial alternatives
- Field work conducted in phases to prevent extraneous data collection and evaluation
- Use of sample analysis procedures suited to data objectives and closer control of analytical turnaround times
- Planning focus on phased data collection approach
- Control of review periods for deliverables.

The phased approach may speed up and improve the RI/FS process.

3.4 DEVELOPMENT AND EXECUTION OF COOPERATIVE AGREEMENT

As authorized by sections 104(c)(3) and 104(d)(1) of CERCLA, a CA is the mechanism used to provide funding to States to conduct State-lead remedial response activities as well as some enforcement-related activities. The CA documents EPA and State responsibilities for the project. A State must enter into a CA with EPA prior to incurring costs for remedial response at a site. A CA may cover activities at a single site or may include response activities at several sites, in which case it is known as a Multi-Site Cooperative Agreement (MSCA).

The current CERCLA statute does not provide for Superfund program authority delegation to States. CERCLA instead allows EPA to enter into site-specific CAs to provide funding to States to carry out certain actions authorized under CERCLA. EPA, however, maintains the responsibility for ensuring that these actions are conducted in accordance with CERCLA, the *NCP*, and Superfund program policies.

As a funding mechanism, a CA differs from a grant because significant Federal involvement is maintained throughout the project. This involvement is necessary because, as explained in the preceeding paragraph, EPA must ensure that actions taken under a CA are consistent with CERCLA, the *NCP*, and program policies. The RPM is EPA's representative responsible for maintaining Agency involvement. These responsibilities include overseeing and assisting the State and may include other EPA responsibilities negotiated with a State on site-specific basis (e.g., in a CA, EPA may agree to provide analytical services through the Contract Laboratory Program).

Before beginning to assist a SPO to develop a CA application, the RPM should have a basic understanding of the CA process. This process generally progresses in three phases:

- Development of the CA application by the State
- EPA reviews
- CA execution and award.

These phases are detailed in the *State Manual*.

The CA application, submitted by the State to EPA, consists of a five-part CA application form (EPA Form 5700-33) and a number of attachments fulfilling Superfund requirements and providing more detailed project information. The five parts of the application are:

- Part I - General Summary Information
- Part II - Project Approval Information
- Part III - Project Budget Information
- Part IV - Project Narrative Statement, including the statement of work
- Part V - Assurances.

Attachments to the application may include the following:

- Attorney General's or Governor's letter certifying the authority of the official signing the CA to enter into the Agreement and make any CERCLA § 104 (c) (3) assurances

- Intergovernmental review comments and approval

- The Procurement System Certification Form (EPA Form 5700-48), as required by 40 CFR Part 33

- The Community Relations Plan (unless plan development is to be funded by the CA)

- The Site Safety Plan

- The Quality Assurance Project Plan (QAPP).

Detailed instructions for completing the form itself and for developing each of the attachments are found in the *State Manual* and associated appendices. The RPM may also review Regional files for recently completed applications to use as examples or for general information.

The CA itself (EPA Form 5700-20A) is distinct from the State's CA application; it is the actual award document prepared by the EPA Regional office for approval and acceptance by the Regional Administrator (RA) and the responsible State official. The

CA specifically incorporates by reference the State's CA application and also contains any special conditions that EPA attaches to the award. The RPM may also want to review Regional files for recently executed CA awards.

In addition, three major regulations govern the contents and administration of, and State conduct of, remedial activities under Superfund remedial CAs. These are:

- The *NCP* (40 CFR Part 300)
- *General Regulation for Assistance Programs* (40 CFR Part 30)
- *Procurement Under Assistance Agreements* (40 CFR Part 33)

Portions of other regulations, such as 40 CFR Part 29 and 40 CFR Part 32, also may apply.

Within this framework, then, the CA development process generally will progress according to the steps outlined in Exhibit 3-3 on the following page; general responsibilities of the RPM, as well as the SPO and other participating EPA offices and personnel, for this process are outlined in Exhibit 3-4. The remainder of this section discusses the actions that the RPM should take to ensure that a CA meets all applicable requirements and is executed properly.

3.4.1 Provision of Assistance During Development of Cooperative Agreement Application

The RPM's major responsibility in the development of a CA application is to assist the SPO in preparing an application package that describes a project that is approvable for EPA funding. At a minimum, the RPM must know where to obtain needed information, including existing guidance manuals, and have access to persons possessing required expertise. In some cases, the RPM may choose to supply the SPO with a successful application as an example.

The RPM should ensure that every CA application developed addresses the legal, technical, financial, and administrative requirements for conducting a remedial response under CERCLA, including community relations concerns. Preparation of many portions of the CA application is straightforward and may not require RPM assistance. Recurring problems have arisen with some sections of the application; these are discussed below.

The RPM should emphasize to the SPO that the State must commit itself to the project schedule included in the application. Enforcement of schedules is a critical tool for successful Regional and Headquarters management of the Superfund program.

EXHIBIT 3-3
Development and Execution of a Cooperative Agreement

EXHIBIT 3-3
Development and Execution of a Cooperative Agreement

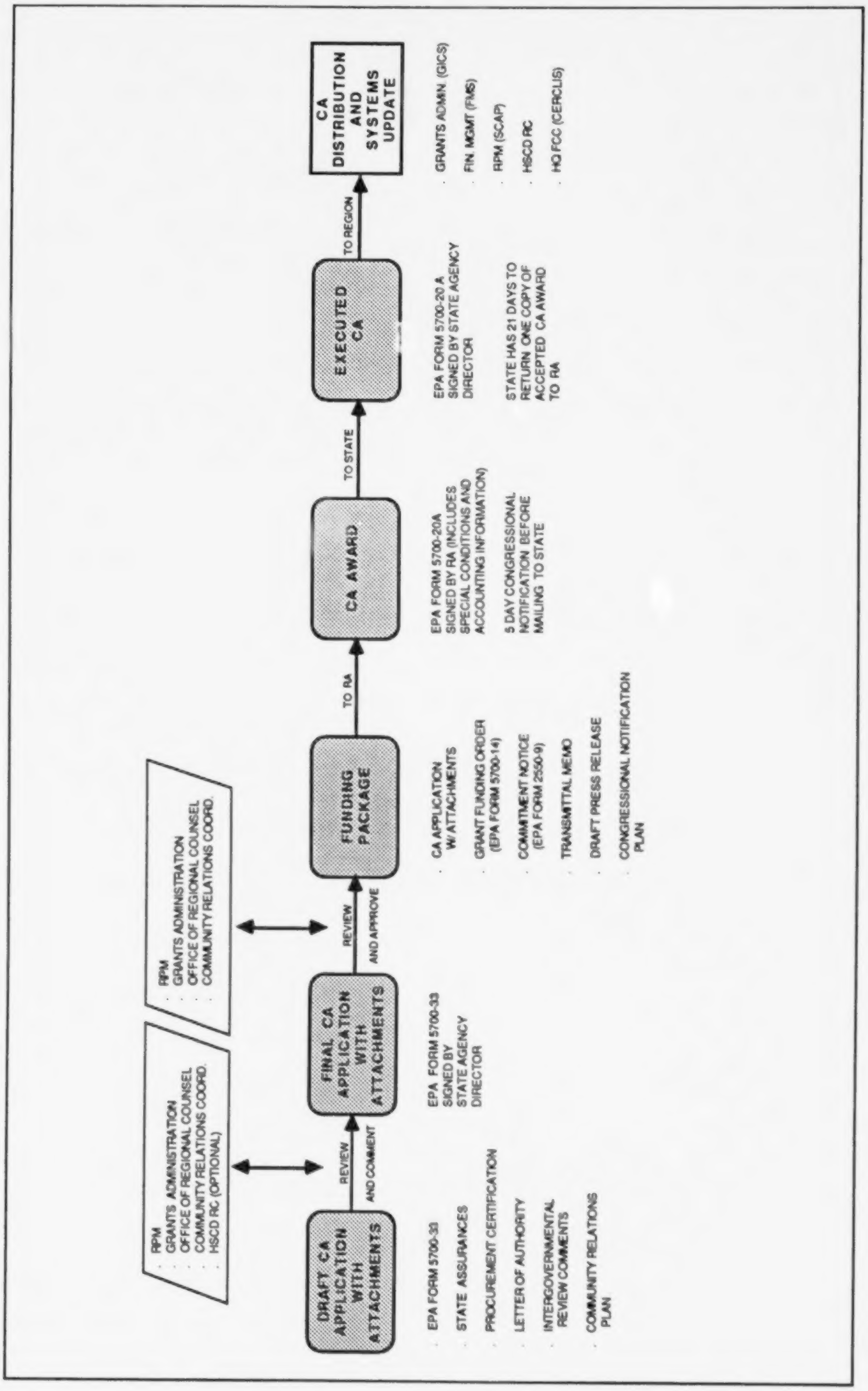
DRAFT CA APPLICATION WITH ATTACHMENTS
. EPA FORM 5700-33
. STATE ASSURANCES
. PROCUREMENT CERTIFICATION
. LETTER OF AUTHORITY
. INTERGOVERNMENTAL REVIEW COMMENTS
. COMMUNITY RELATIONS PLAN
. RPM
. GRANTS ADMINISTRATION
. OFFICE OF REGIONAL COUNSEL
. COMMUNITY RELATIONS COORD.
. HSCD RC (OPTIONAL)
REVIEW AND COMMENT
FINAL CA APPLICATION WITH ATTACHMENTS
EPA FORM 5700-33 SIGNED BY STATE AGENCY DIRECTOR
. RPM
. GRANTS ADMINISTRATION
. OFFICE OF REGIONAL COUNSEL
. COMMUNITY RELATIONS COORD.
REVIEW AND APPROVE
FUNDING PACKAGE
. CA APPLICATION W/ATTACHMENTS
. GRANT FUNDING ORDER (EPA FORM 5700-14)
. COMMITMENT NOTICE (EPA FORM 2550-9)
. TRANSMITTAL MEMO
. DRAFT PRESS RELEASE
. CONGRESSIONAL NOTIFICATION PLAN
TO RA
CA AWARD
EPA FORM 5700-20A SIGNED BY RA (INCLUDES SPECIAL CONDITIONS AND ACCOUNTING INFORMATION)
5 DAY CONGRESSIONAL NOTIFICATION BEFORE MAILING TO STATE
TO STATE
EXECUTED CA
EPA FORM 5700-20 A SIGNED BY STATE AGENCY DIRECTOR
STATE HAS 21 DAYS TO RETURN ONE COPY OF ACCEPTED CA AWARD TO RA
TO REGION
CA DISTRIBUTION AND SYSTEMS UPDATE
. GRANTS ADMIN. (GICS)
. FIN. MGMT (FMS)
. RPM (SCAP)
. HSCD RC
. HQ FCC (CERCLIS)

EXHIBIT 3-4
Execution of Cooperative Agreements

ACTIVITY		RESPONSIBILITIES
1. CA Draft Application	SPO:	• Developing a draft application package and submitting it to the RPM • Coordinating State review
	RPM:	• Coordinating Regional review and providing comments to the SPO • Modifying the SCAP, as needed • Providing advice and assisting the SPO with revisions, as necessary
	HSCD RC:	• Assisting the RPM, as necessary (for issue resolution, program consistency, SCAP revisions)
2. CA Final Application	SPO:	• Revising the draft CA application, as necessary • Obtaining required State concurrences and the Agency Director's signature • Submitting final application
	RPM:	• Coordinating Regional review process; sending a copy of the application to the HSCD RC
	HSCD RC:	• Assisting the RPM, as necessary • Reviewing the final CA application, if requested
3. Preparation of the Funding Package*	RPM:	• Coordinating the development of the Funding Package • Obtaining concurrences on the Funding Package • Developing special conditions
	GRANTS ADMIN:	• Submitting the Funding Package to the Regional Administrator (RA)
	FINANCIAL MGMT:	• May assist in preparation of the Grant Funding Order and Commitment Notice
	REGIONAL COUNSEL:	• Concurring on Funding Package
4. Award of the CA	RPM:	• Tracking the Funding Package through concurrences
	RA:	• Signing the CA (2 copies) as the Award Official
	GRANTS ADMIN:	• Coordinating with HQ Grants for Congressional notification • Sending CA (2 copies) to the State Agency Director
5. Execution of the CA	SPO:	• Obtaining the signature of the State Agency Director on CA (2 copies) • Returning the one copy to the RA (Regional grants)
	GRANTS ADMIN:	• Entering the executed CA date in GICS • Sending copies to Financial Mgmt, RPM
	FINANCIAL MGMT:	• Entering financial data into FMS
	RPM:	• Distributing copies of CA to HSCD RC and other Regional offices as necessary
	HSCD RC:	• Filing copy of executed CA in SRCB file

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* Preparation of the Funding Package is a Region-specific process and may differ from procedures outlined here.

3.4.1.1 Statement of Work (SOW)

In general, the SOW to be included in the CA application should contain a description of all tasks to be performed and a schedule for their completion, as well as identify tangible outputs. The RPM may be required to assist the SPO in developing the SOW to ensure that schedules and outputs are consistent with EPA policies, procedures and priorities.

The RPM should consult the *RI and FS Guidance* manuals to identify elements appropriate for inclusion; actual SOWs should indicate quantitative estimates to permit evaluation of the reasonableness and the basis for task costs. In addition, the RPM should determine where major modifications or additional tasks are needed and should ensure that the schedule developed is accurate. Finally, the RPM should be aware of special requirements for MSCAs; MSCA applications may contain a generic SOW for all RI/FS projects to be performed, but in addition must include an SOW for overall MSCA management and coordination activities. For further information on MSCAs the reader should consult the *State Manual* .

3.4.1.2 Project Budget

Completion of the project budget is an extremely important step in developing the CA application, but has proven to be an area where many problems have arisen. The budget should identify estimated costs for each technical and administrative activity and task in the SOW in both summary form and detail. The budget summary should be broken down into the following object class categories:

- Personnel
- Fringe Benefits
- Travel
- Equipment
- Supplies
- Contractual
- Construction
- Total Direct Costs
- Indirect Costs.

The budget summary also should identify the anticipated total project costs and both the Federal and non-Federal shares for the project. For MSCAs, the State should prepare and submit seperate budget sheets for each NPL site and activity included in each original application and each amendment adding activities and/or sites.

The RPM must be particularly concerned with the allowability and reasonableness of costs listed in the application budget. Certain budget items have been a common source of confusion; these include:

- Direct versus indirect costs
- Administrative and supervision costs
- Equipment costs
- Enforcement costs
- State cost share.

The RPM should consult the *State Manual* and the Regional Grants Office for details on these budget items.

3.4.1.3 Cooperative Agreement Provisions

CA provisions are the mechanisms that define the State and EPA roles and responsibilities during the CERCLA-funded remedial response. The number and types of provisions necessary will vary, depending on the site-specific activities to be funded and the issues that may be encountered. The Superfund program has developed a set of suggested provisions, listed and briefly described in Appendix F of the *State Manual* . The RPM should assist the SPO in determining which of these provisions should be included in the State's application and should ensure that the States use the most recent recommended text. In addition, the RPM should recommend any additional assurances that may be necessary for the project and should assist the SPO in drafting appropriate language. Those not handled in the application may become special conditions in the CA if appropriate. The RPM also should consult with EPA attorneys concerning CA provisions; this will avoid delays due to any last-minute objections.

3.4.2 Review of Draft Cooperative Agreement Application

The RPM's major responsibilities during review of the draft CA application are to conduct an initial check of the application and to coordinate the Regional reviewers, including compiling any comments received and returning them to the SPO. Immediately upon receiving the application, the RPM should ensure that it has been completed properly and includes the required attachments. Exhibit 3-5, on the following page, is a checklist that the RPM can use to assist in this review.

After ascertaining that the application is complete (ensure that all necessary pages are present), the RPM should circulate copies to reviewers to check the application for program consistency; of course, the RPM also should review the application. Participants in the review may vary but should include staff members able to assess the application from technical, financial, administrative, legal, and policy aspects.

In reviewing the draft application, experience has shown that there are several items to which reviewers should pay particular attention, namely:

- Is the project budget in accordance with the SCAP budget? (If not, which needs adjustment?)
- Is the itemized budget breakdown complete?
- Are the cost estimates reasonable?
- Are all applicable assurances present?
- Are the equipment and supplies listed in the application budget necessary for the project?

EXHIBIT 3-5
Cooperative Agreement Application Package Checklist

COMPONENT/ELEMENT	SUBMISSION
1. Application for Federal Assistance (EPA Form 5700-33)	
• Part I - General Summary Information	• Part I, completed and signed
• Part II - Project Approval Information	• Part II, completed
• Part III - Budget Information	• Part III, completed • Detailed budget breakdown
• Part IV - Project Narrative Statement	• Site background summary • Statement of Work
• Part V - Assurances	• Part V, completed
2. Cooperative Agreement Provisions	• Provisions stating intent to comply with 40 CFR Parts 30 and 33 and other EPA regulations, statutes, and general Agency requirements • CERCLA § 104(c)(3) assurances, as applicable • Provisions stating intent to follow other program requirements
3. Other Submissions	
• Certification Letter	• Letter signed by the Governor or Attorney General (or designee) certifying that the State agencys entering into the CA have the authority to do so and to make the assurance required by CERCLA §104(c)(3)
• Intergovernmenal Reviews Comments	• Comments included as appropriate, and a summary of the State response
• Procurement System Certification	• EPA Form 5700-48, completed and with original signature
• Community Relations Plan (CRP)	• Draft CRP included in the draft application package, final CRP in the final application package (or a special condition may be added to the CA guaranteeing submittal and EPA approval prior to initiation of site work)
• Site Safety Plan	• Completed site safety plan or a provision guaranteeing its development and implementation before commencing site work
• Quality Assurance Project Plan (QAPP)	• Completed QAPP or a provision guaranteeing its development and implementation before commencing site work

- Is the SOW complete and appropriate for the site?
- Is the proposed schedule reasonable?
- Are the activities to be undertaken consistent with the *NCP*?

The RPM should ensure that all necessary reviewers have sufficient opportunity to comment on the draft in order to avoid unnecessary delays during the final application review. The RPM should compile all comments received, return them to the SPO, and assist in resolving remaining issues.

3.4.3 Review of Final Cooperative Agreement Application

The State should submit its final CA application directly to the Regional Administrator after having resolved all issues raised during the Region's draft review. The application will be officially received in the Regional office by the Grants Administration Branch (GAB) who will forward the application to the RPM for final review. The RPM is responsible for the final Regional review. The Region must accomplish final review and award within 90 days. The RPM should ensure that all issues raised during the draft review have been resolved and also should ensure that the application conforms to applicable technical, legal, financial, and policy requirements. As before, participants in this review may vary, but must include ORC.

The RPM will be responsible for assisting EPA personnel in conducting this review. The RPM should be available to answer any questions on the application contents, as well as to discuss any outstanding issues. The RPM should compile any comments returned and, if they require revision in the CA application, should contact the SPO to make necessary changes. If changes are relatively minor, the RPM may choose to make the required revisions after negotiating with the SPO and obtaining State concurrence to do so. At this stage, the RPM also should be available to the SPO to provide any additional assistance required in revising the CA application. The RPM is advised to utilize the available expertise of EPA Regional and Headquarters personnel, when necessary; the Regional Coordinator in HSCD can be especially helpful in problem resolution and can contact Headquarters staff members with knowledge in required fields.

3.4.4 Preparation of Funding Package

Once the final review is complete, the RPM and the Regional GAB should jointly prepare a Funding Package to be submitted to the RA for approval and signature.* The Funding Package generally includes:

- A transmittal memorandum to the RA from the Superfund Division Director recommending approval of the Agreement and highlighting potential issues associated with the project
- The State's CA application package

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* The process described in this subsection may vary from Region to Region. Guidance provided is intended to be general in nature.

- The CA (Offer of Award, EPA Form 5700-20A)

- A draft press release for announcing award of the agreement (the RPM should coordinate with the Regional press office)

- A Grant Funding Order (EPA Form 5700-14) and Commitment Notice (EPA Form 2550-9) obtained from the Regional GAB

- A Congressional notification plan for informing concerned Federal and State officials of the Agreement.

An especially important component of the Funding Package is the Special Conditions section which the RPM is responsible for developing and attaching to the Grant Funding Order. These conditions address EPA and Superfund program requirements that are not adequately covered in the CA application. The RPM, through comments received from EPA reviewers (especially ORC and GAB) and discussions with the State, is responsible for identifying project specific requirements or omissions and rectifying them through the addition of appropriate special conditions. The HSCD Regional Coordinator in EPA Headquarters can also provide assistance. However, the RPM should inform the SPO of the addition of special conditions; this may help to eliminate any delays in CA execution.

When the RPM has assembled the Funding Package, it should be circulated for final concurrence to the EPA personnel (Superfund, ORC, and financial management) involved in the draft and final CA application reviews. The RPM then is responsible for ensuring that the package is sent to the Regional grants office for addition of necessary financial information and, thereafter, to the RA, as the Award Official, for signature of the award.

3.4.5 Preparation of Deviation Request

In some site-specific situations, the State may request permission to incur costs for tasks included in the CA application prior to award of the actual agreement. Examples of situations that may merit such expenditures include:

- Anticipated severe weather conditions that require immediate initiation of the project

- Impending expiration of State funds authorized for the project cost share

- Imminent or high potential hazard caused by delay in project initiation.

Pre-award expenditures are prohibited under section 30.308 of EPA's general assistance regulation; however, 40 CFR 30.1001 allows EPA to grant "deviations" from regulations, provided that certain conditions are met.

The State must have submitted its final CA application to EPA in order to request a deviation to allow pre-award costs to be incurred. The State must submit a formal, written request to obtain a deviation and must obtain the approval of the Headquarters Director of the Grants Administration Branch (GAB). The RPM will play a key role in the deviation process; the RPM's responsibilities include those summarized below:

- The RPM should provide any assistance requested by the State in the preparation of the deviation request. This request must be from the State signatory to the CA application and must be directed to the RA, through the RPM.

- Upon receiving the deviation request from the State, the RPM must coordinate the Regional review. Such Regional review should be conducted only for deviation requests where the State has officially filed a CA application and where the project is included on the approved SCAP.

- The RPM must develop the written Regional deviation recommendation to Headquarters GAD for signature by the RA. The RPM also should notify the HSCD Regional Coordinator that a deviation request is being submitted and should ensure that a copy is sent to this individual upon RA signature.

- The RPM is responsible for coordinating any Regional participation in the Headquarters review and approval process. The Regional recommendation, after RA signature, is transmitted to the Headquarters' GAD. The HSCD Regional Coordinator will be asked to concur in the GAD review approval. The RPM may be required to assist in resolving any problems or providing additional justification, if required.

3.4.6 Award and Execution of Cooperative Agreement

After the RA signs (at least) two copies of the CA and the five-day Congressional Notification period is completed, both copies, accompanied by an optional cover letter making the offer of award, are sent to the State for acceptance. The State has three weeks to sign and return the award. After signature by the RA, the Regional grants office enters the CA information into the Financial Management System (FMS). The State may begin incurring costs identified in the CA on the date of the RA's signature (provided this is the beginning of the project period).

Upon signature of the award by the State applicant, one copy of the signed CA must be returned to the Regional GAB. The Regional GAB is responsible for distributing the signed copies to the appropriate Regional offices such as financial management and the Superfund program office (RPM) to complete the execution process. The RPM should obtain a signed copy and send additional copies to the HSCD Regional Coordinator. The RPM also should ensure that relevant information, such as the date of the award, activities funded, schedules, and proposed costs, is entered into the CERCLA Information System (CERCLIS) data base.

If the State applicant is not satisfied with the offer of award, the State may choose not to accept the CA. In this case the State should document its concerns in writing and submit them to the RA. The RPM must coordinate the renegotiation of unresolved issues in order to execute a CA acceptable to both EPA and the State.

3.5 OVERSIGHT OF COOPERATIVE AGREEMENT

The RPM's oversight responsibilities are described throughout this manual. This section provides the RPM with a better understanding of EPA's general approach to oversight of State projects funded under CAs, and describes corrective actions and measures for non-compliance that may be taken when EPA determines that a State is not adhering with the specific terms of a CA, or when it is necessary to improve a State's performance under a CA. Although the RA, as the Award Official, is ultimately responsible for the CA, the RPM is the key EPA official responsible for ensuring that the State has a clear understanding of EPA's expectations for State performance under the Superfund CA. The RPM also is responsible for evaluating the State's performance, for identifying appropriate corrective actions, and in some cases, for making recommendations to the RA for the imposition of measures for non-compliance to address persistent, serious State performance problems. The RPM should maintain a written record of the CA oversight process conducted throughout each Superfund project.

3.5.1 Approach to Oversight

The RPM should seek to maintain a spirit of EPA/State cooperation during the CA project period. Wherever possible, EPA should acknowledge excellent State performance and, through corrective action, assist States to solve problems that impede Superfund program/project progress. Corrective actions should be based on experience with a given State and may be progressively more demanding. EPA and State management officials should be alerted promptly to significant problems that cannot be resolved by the RPM and SPO during project implementation. If necessary, issues should be raised to upper level managers to make every effort to negotiate effective corrective action solutions with the State prior to considering EPA imposition of measures for non-compliance.

3.5.2 Incentives for Successful State Performance

During the oversight process, the RPM may identify project areas in which the State has significant successes. EPA response to competent State performance under a CA may include public acknowledgement by the Regional office, as well as written acknowledgement by the RPM and/or EPA management officials. Recognition of a State's Superfund achievements is an effective incentive and also provides other States with models for success. A sustained level of high performance or steady progress by a State may result in a more flexible oversight posture by EPA, media publication of State program successes, and other incentives designed to stimulate continued State Superfund achievements (e.g., future funding of State-lead projects).

3.5.3 Corrective Actions

When RPM oversight determines that the terms of the CA are not being satisfied, the RPM should approach corrective actions constructively. The RPM should discuss proposed corrective actions with Regional Superfund program managers in order to ensure maintaining a fair and consistent Regional approach to State oversight of Superfund CAs. When identifying appropriate corrective actions for a State-lead project, a State's unique history and needs may be considered.

When a project problem is identified, the RPM and SPO should immediately initiate discussions designed to identify necessary corrective actions. Corrective actions may include, but are not limited to, the following:

- Provide the SPO with additional guidance to clarify EPA requirements
- Conduct periodic EPA/State working sessions to provide technical and/or administrative assistance
- Send "warning" letters to the SPO or State management officials describing the problem and the desired State response (including a schedule, if appropriate)
- Obtain technical assistance from the USACE or the REM contractors
- Hold formal meetings including middle and/or upper level State and Regional managers
- Expand the level of EPA oversight, including increasing the level of communications with State officials and by conducting State office visits
- Renegotiate the CA to modify the level of EPA involvement in the project
- Revert to Federal-lead project.

If a Region is not able to provide a particular type of essential, specialized assistance to a State, the RPM should contact the appropriate Regional Coordinator to request Headquarters resource assistance.

3.5.4 Measures for Non-Compliance

EPA's general assistance regulation, 40 CFR Part 30, Subpart I details formal procedures for resolving EPA/State disputes concerning CAs. The RA may impose measures for non-compliance on a State if unresolved, significant problems persistently occur during a project funded under a CA. Measures may include:

- Issuing a Stop Work Order
- Restricting letter of credit drawdowns by the State
- Switching to reimbursable method of payment
- Suspending or terminating the CA
- Debarring of the State agency as an eligible assistance recipient
- Taking other administrative or judicial measures available under the RA authority.

As with corrective actions, a decision to impose measures for non-compliance on a given State should be based on EPA's experience with that State. If measures for non-compliance are under consideration for a Superfund project, the RPM will need to maintain a high degree of coordination with Regional management officials and with Headquarters. The RPM must be able to document the specific project problems and the corrective actions attempted prior to recommending that the RA impose measures for non-compliance. The RA ultimately is responsible for determining whether a problem is sufficiently significant to warrant such measures and for determining the appropriate type of measure.

3.6 STATE PROCUREMENT UNDER SUPERFUND COOPERATIVE AGREEMENTS

After the execution of a CA, the State may procure one or more contractors to perform the funded work. In doing so, it must comply with EPA's regulation *Procurement Under Assistance Agreements* (40 CFR Part 33). Often, State procurement requirements meet the intent of the Agency's regulation and a State can "self-certify" its system pursuant to 40 CFR 33.110. A signed Procurement System Certification (EPA Form 570048) must be submitted with a CA application whether or not the State self-certifies. State self-certification normally will reduce or eliminate RPM review of individual procurement actions that seeks to determine State compliance with the specific EPA procurement requirements of Part 33. Self-certification, however, does not eliminate or reduce the RPM's responsibility for reviewing and concurring on the State's final contract documents, change orders, etc., to determine that the State complied both with the site-specific requirements and schedule in the CA and with general Superfund program requirements.

If a State has certified its procurement system under a specific CA, the RPM should assess the SPO's working knowledge of EPA's procurement requirements. If the SPO does not fully understand the procurement regulation, the RPM should ensure that the SPO consults with other procurement specialists in the State agency.

A summary of 40 CFR Part 33 is included in Exhibit 3-6 on the following page. The RPM should note that the regulation provides two methods for obtaining the services of an engineering firm for remedial planning activities: the standard method (40 CFR 33.505-33.520) and the optional method (40 CFR 33.525). These methods are defined graphically in Exhibits 3-7 and 3-8, respectively. The RPM also should note that 40 CFR Part 33 Subpart E describes requirements that pertain specifically to procurement for Superfund remedial action construction activities.

The RPM's role in State procurement is chiefly one of oversight to ensure that the State complies with applicable statutes, regulations (especially 40 CFR Part 33), and policies. The RPM should advise the SPO to keep current and complete procurement files since the RPM may conduct periodic, informal reviews, and EPA auditors will conduct interim and/or final audits of the State's conduct of projects under each CA. The RPM should perform the following activities:

- Encourage the use of methods to expedite procurement
- Monitor the State procurement process
- If the State has not certified its procurement system, review procurement and subagreement documents, including final requests for proposals (RFPs), invitations for bids (IFBs), subagreements, and change orders.

EXHIBIT 3-6
Summary of Requirements for Procurement Under Assistance Agreements (40 CFR 33)

TITLE	SUMMARY OF REQUIREMENT	SECTION
Recipient Responsibility	System must ensure that contractors perform in accordance with all applicable subagreement requirements	33.210
Submission of Information	Recipient must inform Award Official of construction subagreements totalling over $10,000 per year	33.211
Limitation on Subagreement Award	System must consider listed factors in determining contractor responsibility	33.220
Competition	System must have procurement transaction procedures which provide maximum open and free competition	33.230
Profit	System procedures must allow only fair and reasonable profits to contractors	33.235
Small, Minority, Women's, and Labor Surplus Area Businesses	System must take the six affirmative steps specified to assure that MBE/WBE/SBE are used when possible	33.240
Documentation	System must require that procurement records and files for purchases over $10,000 include items specified	33.250
Specifications	System procedures for establishing specifications must meet the requirements listed	33.255
Bonding and Insurance	System procurements must meet the specified requirements	33.265
Code of Conduct	System must have a written code of standards of conduct for State officials in dealing with contractors	33.270
Federal Cost Principles	System procedures for determining allowable costs must meet the specified principles	33.275
Prohibited Types of Subagreements	System may not allow cost-plus-percentage-of-cost (where multiplier includes profit) or percentage-of-construction types of contracts	33.285
Cost and Price Considerations	System must provide for consideration of cost and price, as specified	33.290
Lower Tier Subagreements	System must require that prime contractors comply with all provisions specified	33.295
Small Purchase	System small purchase method must meet specified requirements	33.305-315
Formal Advertising	System procedures relating to formal advertising,including those for bidding documents and subcontract awards, must meet the specified requirements	33.405-430
Competitive Negotiation	System procedures for competitive negotiation must meet the specified requirements	33.505-535
Noncompetitive Negotiation	System procedures for noncompetitive negotiation must meet the specified requirements	33.605
Requirements for Recipients of Remedial Action Cooperative Agreements	Subpart requires use of formal advertising for remedial action construction procurements unless determined not to be appropriate (not applicable for remedial planning or for engineering services)	Subpart E
Subagreement Provisions	Subpart includes the clauses which must be contained in subagreements for procurement	Subpart F
Protests	Subpart describes procedures to request EPA review of receipient's protest determination	Subpart G

EXHIBIT 3-7
Standard Method for Procurement of Engineering Services

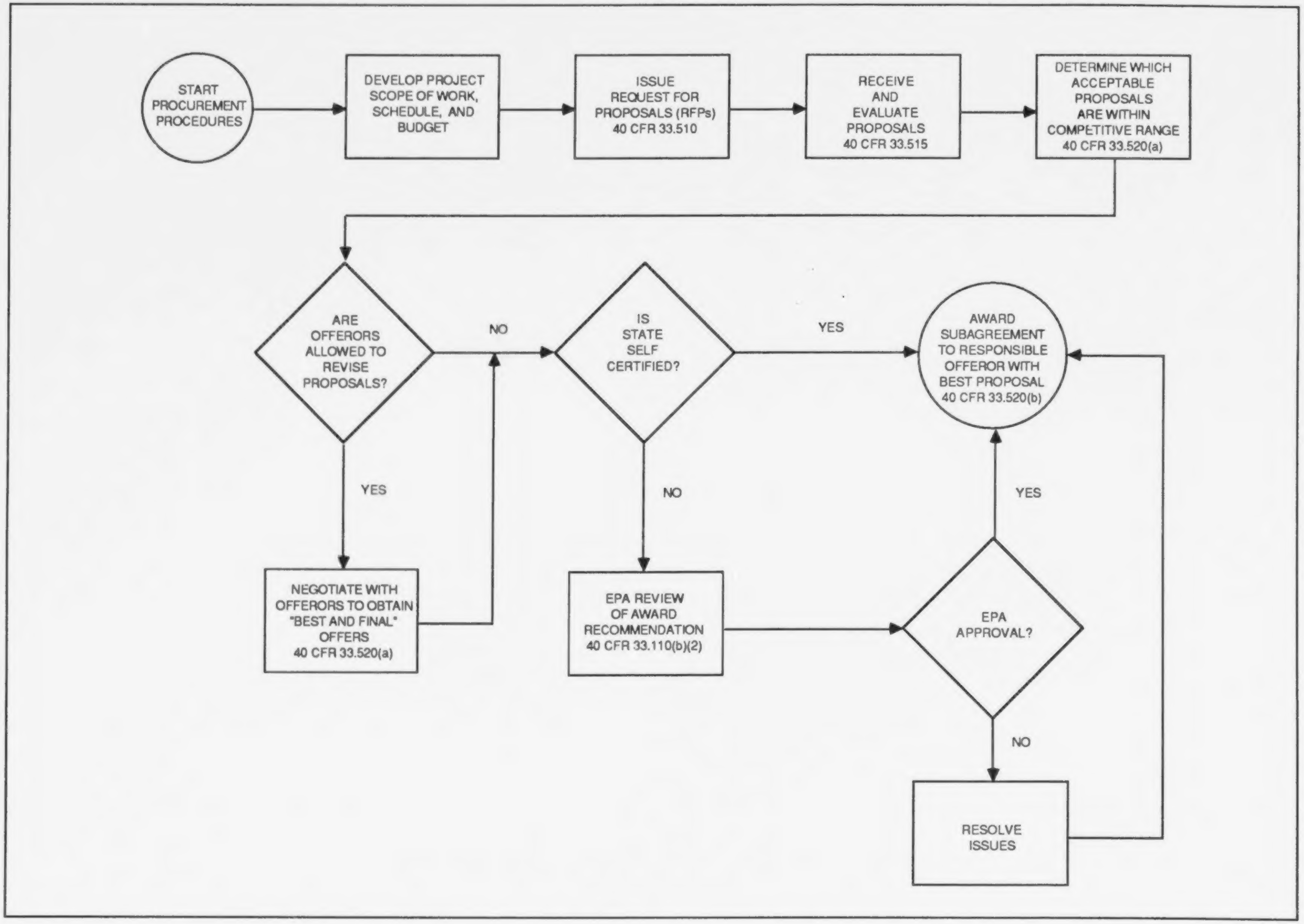
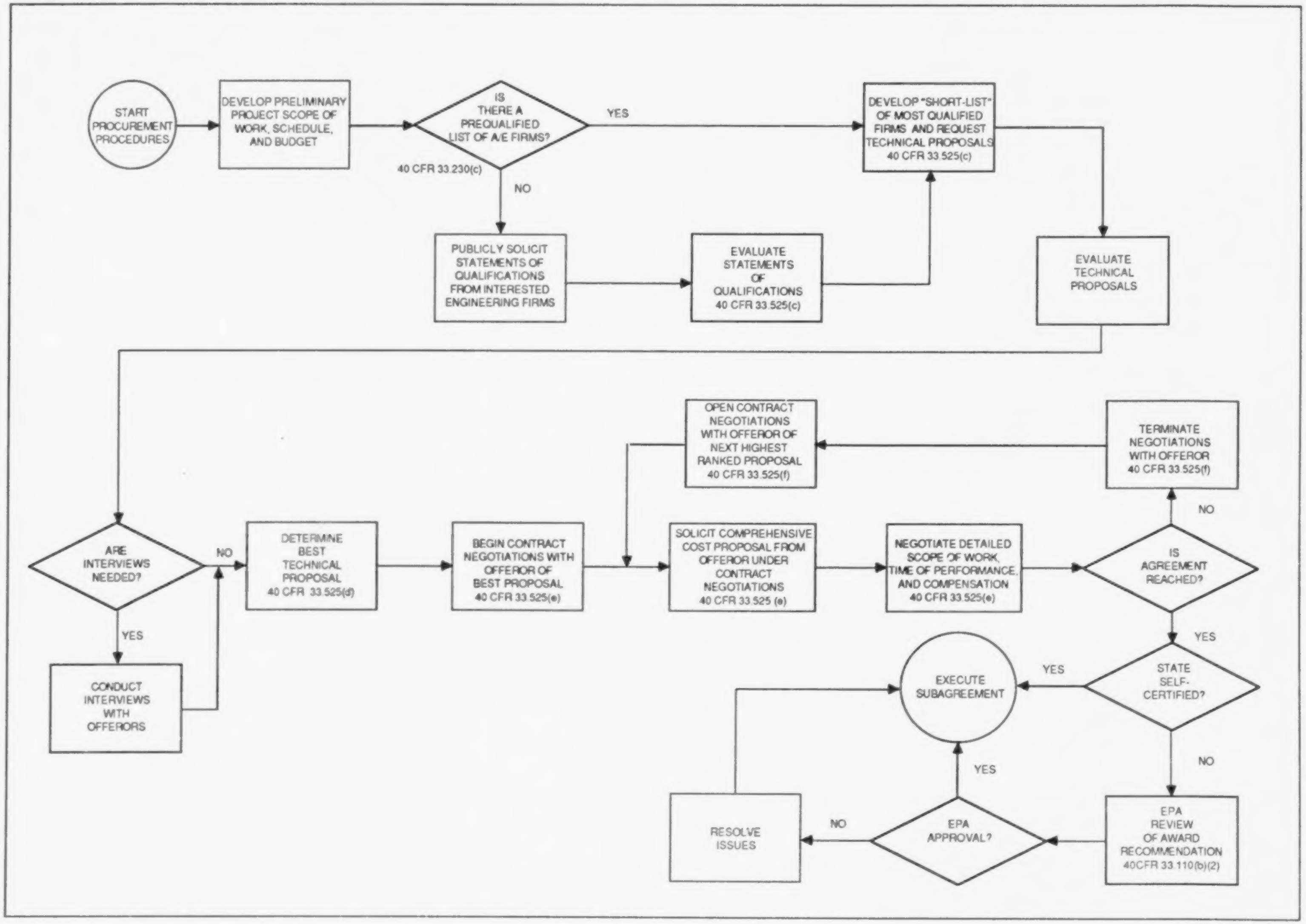

START PROCUREMENT PROCEDURES
DEVELOP PROJECT SCOPE OF WORK, SCHEDULE, AND BUDGET
ISSUE REQUEST FOR PROPOSALS (RFPs) 40 CFR 33.510
RECEIVE AND EVALUATE PROPOSALS 40 CFR 33.515
DETERMINE WHICH ACCEPTABLE PROPOSALS ARE WITHIN COMPETITIVE RANGE 40 CFR 33.520(a)
ARE OFFERORS ALLOWED TO REVISE PROPOSALS?
NO
YES
NEGOTIATE WITH OFFERORS TO OBTAIN "BEST AND FINAL" OFFERS 40 CFR 33.520(a)
IS STATE SELF CERTIFIED?
YES
NO
EPA REVIEW OF AWARD RECOMMENDATION 40 CFR 33.110(b)(2)
AWARD SUBAGREEMENT TO RESPONSIBLE OFFEROR WITH BEST PROPOSAL 40 CFR 33.520(b)
EPA APPROVAL?
YES
NO
RESOLVE ISSUES

EXHIBIT 3-8
Optional Method for Procurement of Engineering Services


START PROCUREMENT PROCEDURES
DEVELOP PRELIMINARY PROJECT SCOPE OF WORK, SCHEDULE, AND BUDGET
IS THERE A PREQUALIFIED LIST OF A/E FIRMS?
40 CFR 33.230(c)
YES
NO
DEVELOP "SHORT-LIST" OF MOST QUALIFIED FIRMS AND REQUEST TECHNICAL PROPOSALS 40 CFR 33.525(c)
PUBLICLY SOLICIT STATEMENTS OF QUALIFICATIONS FROM INTERESTED ENGINEERING FIRMS
EVALUATE STATEMENTS OF QUALIFICATIONS 40 CFR 33.525(c)
EVALUATE TECHNICAL PROPOSALS
ARE INTERVIEWS NEEDED?
NO
YES
CONDUCT INTERVIEWS WITH OFFERORS
DETERMINE BEST TECHNICAL PROPOSAL 40 CFR 33.525(d)
BEGIN CONTRACT NEGOTIATIONS WITH OFFEROR OF BEST PROPOSAL 40 CFR 33.525(e)
OPEN CONTRACT NEGOTIATIONS WITH OFFEROR OF NEXT HIGHEST RANKED PROPOSAL 40 CFR 33.525(f)
SOLICIT COMPREHENSIVE COST PROPOSAL FROM OFFEROR UNDER CONTRACT NEGOTIATIONS 40 CFR 33.525 (e)
NEGOTIATE DETAILED SCOPE OF WORK, TIME OF PERFORMANCE, AND COMPENSATION 40 CFR 33.525(e)
TERMINATE NEGOTIATIONS WITH OFFEROR 40 CFR 33.525(f)
NO
IS AGREEMENT REACHED?
YES
STATE SELF-CERTIFIED?
YES
EXECUTE SUBAGREEMENT
NO
EPA REVIEW OF AWARD RECOMMENDATION 40CFR 33.110(b)(2)
EPA APPROVAL?
YES
NO
RESOLVE ISSUES

3.6.1 Expedited Procurement

When the State is undertaking the lead for remedial planning, the RPM should encourage the SPO to take steps to begin procurement activities as soon as possible after a CA application has been filed, even before a CA is awarded. This will help minimize possible delays since under normal circumstances procurement for remedial planning may require several months to complete. Exhibit 3-9 describes four suggested alternatives for expediting the initiation of remedial planning. These should be considered on a site-by-site basis, as appropriate. The RPM also should be familiar with these methods and be aware of circumstances for which each may be appropriate. The RPM also should contact the SPO early in the remedial planning process to recommend the initiation of expedited procurement, if appropriate; in doing so, the RPM must inform the State that costs incurred for pre-award procurement activities are not allowable under the CA*. Such costs, however, are usually not large when compared to costs that will be incurred after CA award. The RPM, therefore, should encourage the State to begin procurement early in order to expedite the project.

Generally, the options contract for remedial planning is a very successful method for expediting transition into the design phase. This is particularly beneficial because, historically, delays have been encountered during the RI/FS, thus causing the site project to fall far behind schedule by the completion of the RI/FS. If the State has included in its initial procurement an option to extend the subagreement covering the RI/FS to include conduct of the design and construction oversight, it may avoid an additional procurement action. This often can save from two to four months.

3.6.2 Monitoring of State Procurement Process

The State may request EPA assistance at any stage in obtaining engineering contractors. The RPM, therefore, must be available to provide assistance as required, and must be able to contact other EPA staff members in the Region and Headquarters to lend technical or administrative procurement advice or assistance, as the need arises. However, the RPM must not bias the State's selection decision.

The RPM will chiefly become involved in the State procurement process by exercising oversight responsibility on behalf of EPA. RPM involvement may differ, depending on the procurement requirements that the State uses. As stated above, in accordance with 40 CFR Part 33 Subpart A, States are required to certify whether or not their own procurement process fulfills the intent of the Agency's regulation. This will aid in determining the level of critical RPM involvement.

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* If the State has already received a CA for forward planning activities at the site, Federal funds may be used to develop a scope of work and cost estimates for site planning activities. This information will simplify the State's efforts to prepare procurement documents and minimize State costs prior to award of a CA for the RI/FS.

EXHIBIT 3-9
Methods for Expediting Procurement*

Procurement Using Prequalifications -- The State may compile a list of available contractors by requesting qualifications from firms capable of performing remedial planning activities. The list of prequalified firms will then be used to solicit site-specific proposals. However, prequalification procedures must ensure adequate competition.

Pre-Award Procurement -- The State starts procurement activities such as issuing requests for proposals, negotiations, and selection of a qualified firm before the award of the Cooperative Agreement. A procurement subagreement can then be signed immediately after the award of funds. State personnel costs prior to award are not allowable; however, these costs should not be significant.

Procurement for Multiple Site Planning -- States with numerous sites and available funding for cost-sharing may issue a level of effort type subagreement similar to EPA's REM contracts. Once in place, site planning activities could be started immediately following the award of an individual Cooperative Agreement, without the need for site-specific procurement actions.

Options Contract -- The State's initial request for proposal (or similar documents) for engineering services also may cover remedial design and construction oversight as optional activities. The RFP should indicate that only RI/FS activities will be funded, with an option to conduct the design and remedial action engineering services subject to the availability of funds and performance of the contractor.

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* All methods shown must be consistent with EPA's procurement regulation, 40 CFR Part 33. For additional information, see Volume II of the *State Manual,* "State Procurement Under Superfund Remedial Cooperative Agreements," March 1986

If the State does not self certify its procurement system, the RPM may review the award of all subagreements procured under the CA for compliance with requirements of 40 CFR Part 33. The RPM's review of such procurement actions should include:

- Review of the State's recommendation of award for adequate evidence of the selected engineer's or construction contractor's capability to perform the work properly
- Review of the State's compliance with guidelines for using minority and women's business enterprises
- Obtaining evidence from the State that the public solicitation process conforms with Federal, State, and local procurement regulations
- Obtaining evidence from the State that all solicitation and/or bidding disputes have been resolved, or obtaining details of any unresolved disputes.

The RPM should ensure that Regional assistance is available, as needed, to perform procurement reviews. At the RPM's discretion, and with advice from the Regional grants office, the RPM may conduct a detailed review of remedial procurement actions implemented by self-certified States, if the project is highly complex or the State is relatively inexperienced in procurement for Superfund projects.

Even if a State certifies its procurement system, EPA retains the authority to perform procurement oversight and to review all final procurement documents for consistency with general Superfund program requirements. The RPM will have prime responsibilities in such oversight, and may take any of the following actions:

- Review final contracts and change orders
- Receive all bid or offer tabulations after award
- Advise the Award Official to authorize and approve noncompetitive awards under 40 CFR Part 33 (in certain circumstances)
- Advise the Award Official to authorize the use of innovative procurement methods (in certain circumstances)
- Assist in resolving bid protest appeals.

If during a project the RPM determines that the State is not following the procurement procedures that it certified it would follow, the RPM should advise regional managers that corrective actions may be necessary. If the State will not voluntarily correct its procurement procedures to comply with 40 CFR Part 33, EPA must revoke the State's certification and require it to follow the specific procedures of 40 CFR Part 33, including Appendix A. Further, EPA may impose sanctions as detailed in 40 CFR Part 30, including termination of the CA.

3.6.3 Review of Procurement and Subagreement Documents

The RPM should assist the State with procurement by reviewing the documents necessary to conduct and complete the procurement activity. Such documents generally will include the State's RFPs [or requests for qualifications (RFQs)], IFBs, final subagreement documents, and change orders. The RPM also may be required to provide the following services:

- Review draft and final subagreement documents prepared by the State to ensure that they present project requirements in a clear, coherent manner. These documents must contain:
    - Provisions that meet the requirements of 40 CFR Part 33 and other Superfund-specific requirements (including cost documentation)
    - Technical specifications, including needs for materials, work products, and services, along with a required schedule
    - Bonds and insurance requirements
    - Payment terms, (meeting EPA financial requirements for progress payments, final payment terms, and documentation supporting project completion)
    - Procedures to effect project control, such as progress reporting
    - An accurate, proposed project schedule and contractor requirements to regularly revise the schedule, as needed
    - Requirements for utilizing small, women's and minority businesses
    - Change order provisions and claims management procedures
    - Provisions addressing health and safety requirements, including the development of a health and safety plan
    - Project closeout requirements.
- Ensure that the State utilizes proper procedures in advertising the procurement. This should include taking measures to promote competition, publishing the notice of procurement (RFP or RFQ) in journals with sufficiently wide circulation, and informing minority and women's business enterprises of the procurement.
- Review the State's method of evaluating proposals (or statements of qualifications) and bids. The RPM should ensure that the State consults the most current EPA *"Master List of Debarred, Suspended, and Voluntarily Excluded Persons"* (40 CFR 32.400) to exclude from consideration any prohibited firms. The Master List is updated weekly and is available from ORC.

The RPM may request assistance on procurement oversight from other Regional personnel (particularly ORC), the REM contractor or from the USACE. In addition, the RPM may be requested to obtain the services of the USACE to assist the State in conducting specific biddability/implementability reviews. Although more commonly required for remedial actions, this may be necessary for complex remedial planning projects. To obtain USACE assistance, the RPM must prepare a request under EPA's technical assistance Interagency Agreement with the USACE. The RPM should consider the cost of such assistance and incorporate it into the Region's SCAP estimates at the beginning of the fiscal year. Additional information on State procurement for Superfund projects can be found in Volume II of the *State Manual*: "State Procurement Under Superfund Remedial Cooperative Agreements, " March 1986.

3.7 WORK PLAN REVIEW AND APPROVAL

Following execution of the State's subagreement for the RI/FS, the State's contractor develops a site-specific work plan based on the SOW in the CA application. The work plan should describe the available information on the site and the extent of the problem, the tasks and services to be performed, reporting requirements, schedules, costs, and required deliverables. Deliverables may include supplemental plans for quality assurance/quality control (QA/QC), health and safety, sampling and analysis, and final reports. Development of an acceptable QA Project Plan (QAPP) and Health and Safety Plan has been cited as critical path items which often delay site progress. It is State's responsibility to ensure that the work plan and supplemental plans are developed. The RPM is responsible for ensuring that the plans are developed in an acceptable and timely manner and for facilitating their review, approval, and/or concurrence. The remainder of this section will discuss in detail the RPM's responsibilities with respect to this activity.

3.7.1 Oversight of Progress in Development of Work Plan and Other Supplemental Plans

During development of the work plan and supplemental plans, it is very important that the RPM make sure that the SPO is in close and frequent contact with contractor personnel developing these plans. The SPO, and, if necessary, the RPM, then can provide inputs needed to help contractors in preparing acceptable plans in a timely manner. It is recommended that the RPM hold meetings with the SPO and contractor's site manager a few days after the contractor has had an opportunity to review the CA SOW. At this meeting, any outstanding concerns regarding the SOW should be discussed and resolved. The SPO and RPM should emphasize to the contractor their willingness and availability to provide necessary technical assistance and support in preparing the work plan and supplemental plans. In addition, the RPM may find it appropriate to conduct a site visit with the contractor and SPO.

To further ensure that the plans are prepared in a timely manner, the RPM should be in frequent contact with the SPO to assess the contractor's progress in developing the plans and to identify any problems. The RPM should advise the SPO to communicate any problems as soon as they are identified. The RPM then will be responsible for working with the SPO and the contractor to resolve these problems.

3.7.2 Review of and Concurrence on Contractor Work Plan and Supplemental Plans

The contractor is responsible for submitting to the State a draft work plan and the draft supplemental plans cited earlier. The SPO is responsible for reviewing and approving each of these plans. The RPM is responsible for reviewing the plans and for concurring with the SPO on final approvals. The RPM may elect to schedule a joint meeting with the SPO and State contactor to approve site work plans.

The objective in reviewing the work plan is to obtain a plan by which an expeditious, least-cost, high-quality RI/FS can be accomplished. In doing so, the RPM should consult the appropriate guidance documents. These include:

- *RI Guidance*
- *FS Guidance*
- *Guidelines and Specifications for Preparing Quality Assurance Project Plans (QAMS-005/80)*, December 1980
- *Standard Operating Safety Guides Manual*, November 1984.

Most of the tasks in the RI/FS work plan can be examined with regard to technical quality, budget, and schedule.

Technical considerations during the review include the following:

- Purpose, scope, and methodology for each task
- Proposed quantity and distribution of ground water, surface water, soil, air, and other samples
- Spacing and depth of soil borings and monitoring wells
- Types of proposed analyses, taking into account technologies that may be evaluated for use at the site, and any applicable or relevant and appropriate Federal or State environmental standards
- Use of bench and pilot scale studies
- Use of ground water or other models
- General relationships between pathways and the receptors, the likely alternatives, and the scope of the RI/FS.

In reviewing the technical aspects of the work plan, the needs of the phased RI/FS approach that EPA is developing should be kept in mind. (See Chapter 4.) The phased RI/FS will require additional technical review, such as consideration of the use of multiple sampling events to provide data necessary for determining further sampling needs, the increased use of analytical alternatives such as field screening, and a greater emphasis on early remedial alternatives screening.

When examining the work plan from the standpoint of budget, the overall cost of the project and consistency with the CA budget, unit costs and quantities of such items as well footage, the use of equipment and other resources, and the proposed level of effort for each task should all be considered. Cash flow scheduling, cost control, and reporting measures specified in the subagreement documents should be reviewed to anticipate potential cost overruns .

The schedule and organization of the work plan should be reviewed to determine whether task durations seem reasonable, resource conflicts exist, the sequence of tasks seems appropriate, and events are scheduled to occur during appropriate seasons of the year. For instance, field sampling probably should not be scheduled for the middle of a New England winter, nor should high water table conditions be sought during August. Sampling also may be scheduled to coincide with seasonal variations in EPA Contract Laboratory Program workload (heaviest during warm months). It is especially important for the RPM to examine closely those tasks which are on the project critical path. Finally, the RPM should ensure that the schedule includes both sufficient periods of time for reviewing deliverables and milestone review meetings.

The RPM's major role during the work plan review is that of EPA's primary contact and coordinator. Copies of the draft work plan may be distributed to technical experts within EPA -- such as hydrogeologists, toxicologists, chemists, and biologists -- for review within their areas of specialty. The actual procedures employed in the review may vary from Region to Region or from site to site, but a document as technically diverse as a work plan should always be reviewed by a multi-disciplinary team. In this way, the RPM draws from a larger pool of knowledge and expertise. In addition, the RPM must coordinate this review with other involved parties, both internal and external to EPA. This review may include input from EPA enforcement, Superfund community relations, air program, laboratory support, legal staff and the Environmental Response Team (ERT). EPA enforcement and legal staff review of work plans is critical if negotiations are anticipated for RD/RA. Finally, the USACE may be brought into the review process at this time; this will be funded through a technical assistance Interagency Agreement.

An important aspect that the RPM should consider in coordinating this review is the need to keep the process moving. This may be difficult to accomplish when participants are not under the RPM's authority or within the Superfund program itself. To achieve a constantly progressing review, the RPM should establish a reasonable review schedule and ensure that it is implemented, using a combination of negotiating skills and, if necessary, upper level managers' involvement.

While involving a number of technical and other experts in this review, the RPM also may provide direct review of several aspects of the work plan, including project budgets, schedules, and some technical aspects. One approach to accomplishing this is to advance the project mentally in time to identify potential problems, based on personal experience. For less experienced RPMs, a different approach would be to apply any familiarity with project needs gained from work on other RI/FSs. Comparisons can be made by such exercises as looking at actual durations of similar tasks and calculating unit quantities, such as soil borings per acre, ground-water samples per cubic foot of aquifer, dollars per foot of well installed, and so on. In this way, the RPM can determine appropriate amounts of sampling and those sampling approaches and methodologies that meet the needs of various site conditions and circumstances. Some relationships among sample intensity and methodologies and quality of the RI/FS also may be tentatively drawn from examining RODs developed for completed RI/FSs. The RPM is cautioned, however, that site uniqueness has a significant bearing on work plans. For example, rules-of-thumb unit sample quantities may not work for areas with complex hydrogeology.

Another possible approach to the review of the work plan is to use an ad hoc group of experienced RPMs, technical specialists, and other staff members knowledgable in pertinent areas. These individuals could utilize experience and insights derived from past and current work on RI/FSs. If this approach is used, it is recommended that at least one member of the group visit the site early in the review process.

Finally, for very complex or unique sites, the Region can use a Delphi review process to supplement normal work plan review procedures. In the Delphi review, a review panel is specifically selected for the site in question. The Delphi manager -- in this case, most likely the RPM -- circulates copies of the work plan to the reviewers, who can be either EPA staff members or contractor personnel. Panel members independently review the document and submit comments to the Delphi manager, who generates a consensus report. This process, while similar to the normal review led by the RPM, draws upon a wider range of in-house and external expertise.

All EPA comments on the draft work plan and supplemental plans should be reviewed with the SPO and, ideally, with the State's contractor. If the RPM disagrees with the work plan or supplemental plans, the RPM should explain the reasons for the disagreement and to discuss any modifications that will be necessary to correct the problems. Once the contractor completes the modifications, the RPM should notify the SPO in writing that the plans are acceptable and that EPA concurs with State approval.

ADDITIONAL SOURCES OF INFORMATION

"CERCLA Pre-Award Costs," OGC, May 10, 1983.

Community Relations in Superfund: A Handbook, OERR, September 1983 (under revision). (OSWER Directive 9230.0-3)

Cost Principles for State and Local Governments, OMB Circular A-87.

Cost Recovery Actions Under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), OEC and OSWER, August 26, 1983.

EPA General Regulation for Assistance Programs (40 CFR Part 30).

EPA Standard Operating Safety Guides, November 1984.

Executive Order 12372, "Intergovernmental Review of Federal Programs" (47 FR 30954), July 16, 1982.

Executive Order 12432, "Development of Minority Business Enterprises," July 14, 1983.

Guidance on Feasibility Studies Under CERCLA, OERR and OWPE, June 1985. (OSWER Directive 9355.0-6B)

Guidance on Remedial Investigations Under CERCLA, OERR and OWPE, June 1985. (OSWER Directive 9355.0-5C)

Intergovernmental Review of Environmental Protection Agency Programs and Activities, Final Rule (40 CFR Part 29).

Instructions on Budget Execution, OMB Circular A-34.

Letter of Credit Users Manual, EPA, Division of Financial Management.

"Master List of Debarred, Suspended, and Voluntarily Excluded Persons," 40 CFR 32.400, Weekly.

National Enforcement Investigation Center (NEIC) Policies and Procedures Manual, NEIC, May 1978 (Revised February 1983).

National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), November 20, 1985.

"Notice of Supplemental Procedures for Establishing Start Dates of Comment Period for Activities Subject to Executive Order 12372," (48 FR 54692), EPA, December 6, 1983.

"Payment of State Enforcement Costs Under Superfund," OERR and OWPE, January 21, 1983.

"Procedures for Issuing Notice Letters," OWPE, October 12, 1984.

Procurement Under Assistance Agreements (40 CFR Part 33).

"Remedial Financial Management Instructions," AA/OSWER, September 21, 1984.

State Participation in the Superfund Program. OERR, February 1984. (OSWER Directive 9375.1-2)

"State Procurement Under Superfund Cooperative Agreements, " March 1986, Volume II of State Participation in the Superfund Program. (OSWER Directive 9375.1-5)

"Suggested Regional File Structure, Superfund Priority Sites and Priority Site Candidates," OERR, May 1982.

"Superfund Comprehensive Accomplishments Plan," AA/OSWER

"Timely Initiation of Responsible Party Searches, Issuance of Notice Letters, and Release of Information," OWPE, October 9, 1985.

Uniform Administrative Requirements for Grants -- An Aid to State and Local Governments, OMB Circular A-102.

4. REMEDIAL INVESTIGATION/FEASIBILITY STUDY

The remedial investigation (RI) and feasibility study (FS) are interdependent processes. The activities conducted during the RI and FS generally are performed concurrently, with each project influencing the execution of the other. The objectives of the RI are data collection, data analysis, and site characterization, while the objectives of the FS are alternatives evaluation and decision-making.

During a State-lead RI/FS project, the State or State's contractors are responsible for conducting the various activities necessary to characterize the hazardous waste site and to evaluate alternatives to remedy the situation. The State Project Officer (SPO) has the direct responsibility of overseeing the contractors, ensuring that approved work plans are followed. The RPM's general responsibilities include assuring that all RI/FS activities are conducted in a timely, effective, and efficient manner in accordance with all relevant EPA policies and regulations. The RPM must monitor technical and financial progress and performance and also provide technical assistance where needed. While the previous chapter emphasized the activities required to plan and initiate a State-lead RI/FS project, this chapter provides a description of the RPM's duties required to ensure that the project is completed as specified in the Cooperative Agreement (CA) statement of work (SOW), budget and approved work plans. This chapter is divided into five major sections dealing with RPM activities during the RI/FS:

- Ongoing project management
- Site characterization
- Alternatives screening and evaluation
- Approval of the RI/FS Report(s)
- RI/FS Completion.

Exhibit 4-1 depicts the concurrent activities associated with the RI and FS processes. Activities above the heavy line are generally the responsibility of the State contractor, those in the shaded area are the responsibility of the State, and those below are the responsibility of the EPA. Additional information on the RI and FS processes can be found in three guidance documents:

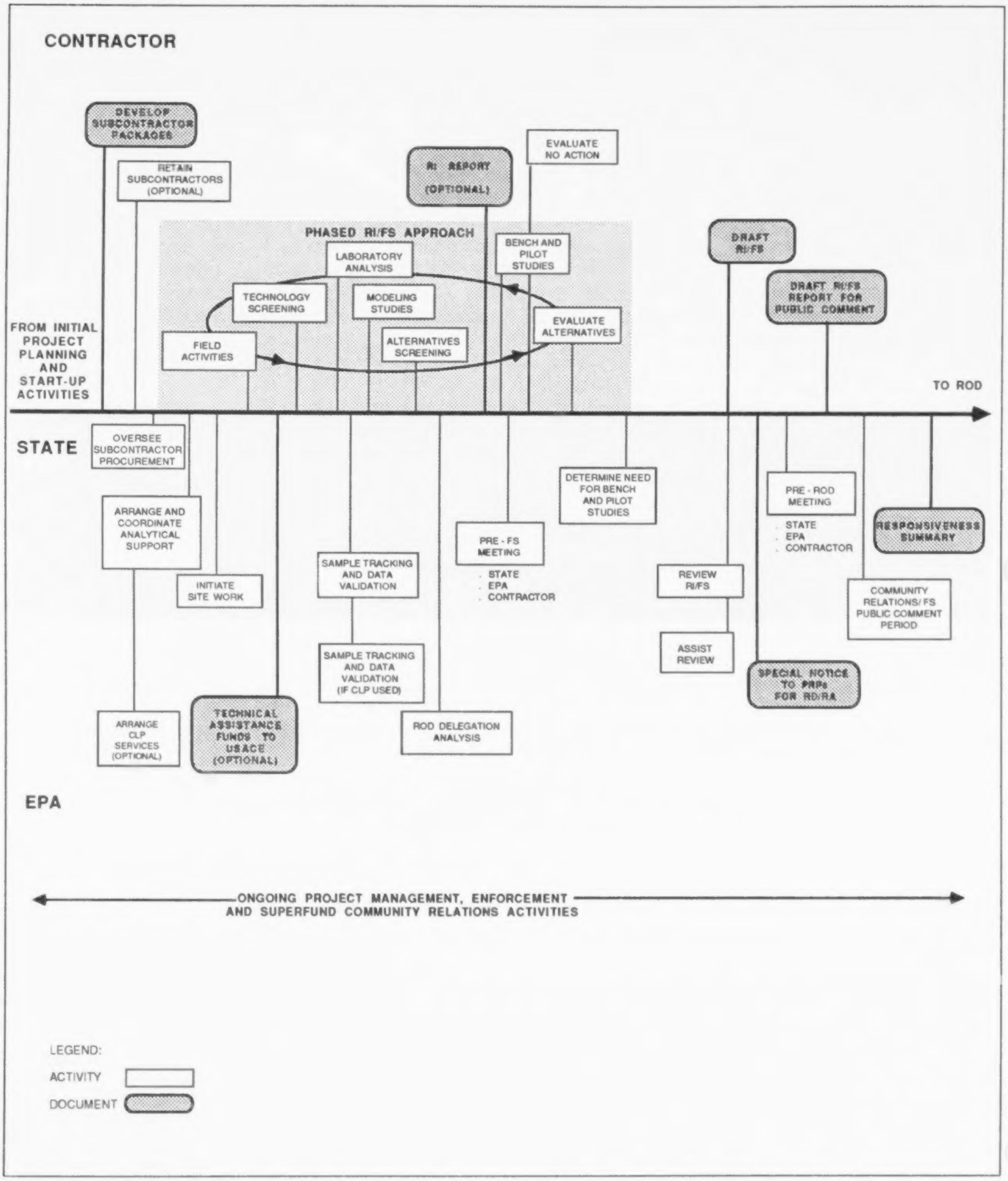
- *Guidance on Remedial Investigations Under CERCLA*, June 1985 (hereafter referred to as the *RI Guidance*)

- *Guidance on Feasibility Studies Under CERCLA*, June 1985 (hereafter referred to as the *FS Guidance*)

- *Superfund Public Health Evaluation Manual*, Draft, December 1985.

Individual site conditions govern the extent of data collection and analysis for each RI and FS activity, and review of specific options is beyond the scope of this handbook. The reader is encouraged to rely heavily on the *RI Guidance* and the *FS Guidance* in conducting this phase of the remedial response project.

EXHIBIT 4-1
Remedial Investigation/Feasibility Study (RI/FS)


CONTRACTOR
DEVELOP SUBCONTRACTOR PACKAGES
RETAIN SUBCONTRACTORS (OPTIONAL)
RI REPORT (OPTIONAL)
EVALUATE NO ACTION
PHASED RI/FS APPROACH
LABORATORY ANALYSIS
BENCH AND PILOT STUDIES
TECHNOLOGY SCREENING
MODELING STUDIES
EVALUATE ALTERNATIVES
ALTERNATIVES SCREENING
FIELD ACTIVITIES
DRAFT RI/FS
DRAFT RI/FS REPORT FOR PUBLIC COMMENT
FROM INITIAL PROJECT PLANNING AND START-UP ACTIVITIES
TO ROD
STATE
OVERSEE SUBCONTRACTOR PROCUREMENT
ARRANGE AND COORDINATE ANALYTICAL SUPPORT
INITIATE SITE WORK
SAMPLE TRACKING AND DATA VALIDATION
SAMPLE TRACKING AND DATA VALIDATION (IF CLP USED)
PRE - FS MEETING
. STATE
. EPA
. CONTRACTOR
DETERMINE NEED FOR BENCH AND PILOT STUDIES
REVIEW RI/FS
ASSIST REVIEW
PRE - ROD MEETING
. STATE
. EPA
. CONTRACTOR
RESPONSIVENESS SUMMARY
COMMUNITY RELATIONS/ FS PUBLIC COMMENT PERIOD
SPECIAL NOTICE TO PRPs FOR RD/RA
ARRANGE CLP SERVICES (OPTIONAL)
TECHNICAL ASSISTANCE FUNDS TO USACE (OPTIONAL)
ROD DELEGATION ANALYSIS
EPA
ONGOING PROJECT MANAGEMENT, ENFORCEMENT AND SUPERFUND COMMUNITY RELATIONS ACTIVITIES
LEGEND:
ACTIVITY
DOCUMENT

4.1 ONGOING PROJECT MANAGEMENT ACTIVITIES

Oversight and management of a State-lead RI/FS project requires a number of ongoing project management activities. Many of these activities are common to all phases of the remedial process; however, within each stage of the remedial response, specific actions are required. Those for the RI/FS are outlined below.

Throughout the RI/FS process the RPM must coordinate with State officials to stay apprised of site progress and to provide appropriate input on all aspects of the RI/FS process. Among the specific management activities an RPM must perform are the following:

- Oversee technical and financial progress
- Monitor project schedule
- Review and concur on contractor work products
- Ensure adequate State reporting
- Ensure proper data management, including updating automated systems and maintaining accurate site files
- Modify the CA, as necessary
- Assist in amending the CA
- Coordinate with other Regional staff including Regional Superfund Community Relations
- Obtain assistance of the U.S. Army Corps of Engineers (USACE) and technical contractors (optional)

Additionally, as the RI/FS is drawing to a close the RPM should ensure that the State initiates the intergovernmental review process and prepares to amend any agreements with EPA for the next phase of the cleanup.

4.1.1 Technical Progress Oversight

Oversight of technical progress is one of the main responsibilities of the RPM during performance of the RI/FS. The purpose of the oversight is to ensure that RI/FS activities are conducted in accordance with the CA SOW, approved work plans, and all applicable EPA policies and regulations. The RPM should actively monitor the progress of the RI/FS. Early on, the RPM and the SPO should meet and identify key project milestones and firmly establish lines of communication. The RPM can monitor the attainment of project milestones in the following ways:

- Conduct site visits
- Review progress reports, Quarterly Reports (including summaries of financial drawdowns), and work products
- Communicate frequently with the SPO.

The RPM should anticipate problems, especially those affecting major milestones. Should problems occur, the RPM should work with the SPO to develop solutions. Also, the RPM should inform the SPO of changes in EPA policy that impact performance of the RI/FS. The RPM may request technical oversight assistance under the Federal remedial planning (REM) contracts or from the USACE. Additional technical expertise for review of hydrogeologic data or ground water flow models may be of critical assistance to the RPM (See Section 4.1.7).

Oversight of financial progress is also a major responsibility of the RPM. The RPM should carefully review Quarterly Reports and Financial Status Reports (Standard Form 269) and the approved CA budget to evaluate ongoing project expenditures. Quarterly Reports usually will be prepared by the SPO and submitted directly to the RPM as required by the standard CA reporting provision. Financial Status Reports (FSRs), however, may be prepared by responsible financial accounting staff within a State agency and instead of the SPO. These reports, which describe site specific quarterly outlays, usually are submitted to the Regional Financial Management Division (FMD). The RPM may contact the FMD and request that copies of FSRs be routinely sent for review as a critical part of project oversight.

Questionable expenditures or concerns regarding the rate of financial outlays should be brought immediately to the attention of the SPO. The RPM is responsible for evaluating project costs for reasonableness and allowability under CERCLA (See Office of Management and Budget (OMB) Circular A-87, *"Principles for Determining Costs Applicable to Grants and Contracts with State, Local, and Federally Recognized Indian Tribal Governments."*) The RPM also should encourage the SPO to regularly submit vouchers for drawdowns so project outlays accurately reflect project progress. If the RPM is uncertain about the reasonableness of a specific cost item, the RPM should request assistance from the Grants Administration Branch (GAB), FMD and/or the Office of Regional Counsel (ORC). The RPM should act quickly to resolve any questions or concerns regarding project finances and ensure that written cost justifications or clarifications are added to the site file. This will assist auditors to properly evaluate the project and will help eliminate many after-the-fact questions regarding project costs that may arise during an audit. Additionally, the RPM should review the status of funds under a CA periodically (at least annually) to determine if funds can be reprogrammed or deobligated rather than remain in an inactive account.

For Multi-site CAs (MSCAs), the project management and accounting functions are more complex. RPMs and SPOs should consult the *State Manual*.

4.1.2 Data Reporting and Record Keeping

Throughout the RI/FS the RPM is responsible for maintaining thorough, accurate records for the purposes of project management and future cost recovery actions, as well as for interim and final audits. The RPM also must instruct the SPO concerning which records the State must maintain and which documents should be forwarded to EPA for its files. In addition, the Superfund Amendments require EPA to establish an Administrative Record upon which the selection of a response action will be based. The Record must be available to the public at or near the site.

The RPM must maintain site files, including all relevant documentation that will support cost recovery actions. Further information on cost recovery is given in *Cost Recovery Actions Under CERCLA*, August 1983 and *Procedures for Documenting Costs for CERCLA §107 Actions*, January 1985. This manual also includes a suggested file structure. At the completion of the RI/FS, the RPM may be asked by Regional enforcement staff to assist in the preparation of a Cost Recovery Summary. Examples of documentation relevant to the RI/FS that should be maintained by the RPM, SPO, and contractors include:

- Contractor work plans and progress reports
- On-site logs, notes, and manifests
- Analytical laboratory reports
- RI reports
- Alternatives evaluation reports.

The RPM should consult the data management chapter of the *RI Guidance* and Appendix U of the *State Manual* for additional information.

A complete file for each CA also may be maintained in GAB. Keeping an "official" file in the GAB is recommended since it provides another centralized location for information about CAs which may be used to respond to requests from members of Congress or upper-level EPA management.

Periodically, the RPM also will become involved with reviewing or updating information developed for use in EPA's automated data systems. The following are the major systems of concern, along with relevant RI/FS input/review requirements:

- CERCLIS (CERCLA Information System) -- This system combines the Emergency and Remedial Response Information System and the Project Tracking System and is used to track major accomplishments at candidate and actual NPL sites. Activity start and completion dates for RI/FS must be entered. The RI/FS start date is the date the RI/FS funds are obligated. The FS completion date is when the Record of Decision is signed.

- SCAP (Superfund Comprehensive Accomplishments Plan) -- This system is the official mechanism through which the Assistant Administrator for the Office of Solid Waste and Emergency Response (AA/OSWER) approves funding needs for proposed Superfund activities. Activities must be on the approved SCAP to receive funding. The RPM should coordinate with the Regional SCAP contact to ensure that information on the SCAP is accurate and adequate funding is budgeted to maintain site progress. Particular attention must be given to ensure that subsequent RD activities appear on the SCAP so that the RD start date is not delayed.

- FMS (Financial Management System) -- The Office of Emergency and Remedial Response (OERR) Funds Control Center (FCC) is responsible for preparing monthly and ad hoc financial status reports on the remedial program. RPMs may be asked to review these reports for accuracy.

Additional guidance is available for each of the above systems. Regional contacts or Headquarters staff responsible for each data system can supply these documents and any other guidance as needed.

4.1.3 State Reporting Requirements

Although 40 CFR Part 30 does not require the State to submit progress reports more frequently than once per quarter, more frequent interactions obviously are beneficial. The RPM and the SPO should agree to more frequent information exchange and a special condition to this effect can be included in the CA. For example, the SPO may forward the contractor's monthly technical progress reports to the RPM for review. This need for information about a project does not indicate a lack of trust in the SPO but rather a requirement of the RPM as the EPA manager of Federal funds.

The State's Quarterly Report is a formal progress report required under 40 CFR Part 30 that should contain (but is not limited to) the following information:

- Description of activities, subactivities, and tasks completed to date, including community relations activities

- Itemization of expenditures by object class and by each task/subactivity/activity in the CA application SOW; including both expenditures for the quarter and cumulative expenditures to date

- Estimates (percentages) of work completed for each activity or subactivity in the SOW, including a basis for the estimates

- Estimated variances (cost and time) expected at project completion.

The RPM and the SPO should reach initial agreement on the contents of, and format for, the report; the SPO is encouraged to require a similarly formated monthly report from the State contractor. This eliminates the need for the SPO to reformat the contractor's reports.

For MSCAs, the State may submit one overall report containing seperate sections that address each specific site's funding and progress.

The RPM should utilize the State's Quarterly Report and other progress reports to oversee technical and financial progress. These may aid in anticipating the need to modify the CA, SCAP targets, or other program commitments. Headquarters is developing additional guidance on State Quarterly Reports.

4.1.4 Modifications to Cooperative Agreement

During the course of the RI/FS it may become necessary to modify the existing CA. Minor modifications may be approved (in writing) by the RPM. These are modifications which in general do not alter or violate the:

- Total project costs

- Specific project budget

- Project objectives

- Project period of performance

- OMB Circular A-102 transfer rules (e.g., transferring funds obligated for indirect costs to personnel costs)

For example, the RPM has the authority to approve minor project schedule adjustments that do not extend the period of performance. The RPM in this case must evaluate whether the schedule change is justified and whether the overall project schedule realistically can be maintained if the modification is allowed. The RPM also may approve minor modifications to the RI/FS work plan if neither costs nor objectives are affected.

4.1.5 Cooperative Agreement Amendments

A formal amendment to the CA may be required if, during the RI/FS, any of the following conditions arise:

- The objectives of the project are to be changed (e.g., from an evaluation of source control alternatives to an evaluation of management of migration measures)
- The total amount of the project awarded is to be changed
- The scope of project is to be substantially changed (e.g., to characterize a larger site area than originally approved)
- It becomes necessary to make changes in special conditions
- It becomes necessary to rebudget approved amounts in object class categories
- It becomes necessary to shift funds from one activity to another
- It becomes necessary to shift funds from one site to another (MSCA)
- If (for State-lead Enforcement RI/FS) the State compels PRPs to conduct the project.

The RPM should anticipate and plan for formal amendments, since these require a submission by the State (in most cases), preparation of a CA amendment by EPA and approval (signature) by the Award Official, and acceptance (signature) by the State. RPMs should consult the HSCD Regional Coordinator if there is uncertainty over the need for a formal amendment.

Formal amendments often are cited as a cause for delay in State-lead remedial projects. There are a number of steps the RPM can take, however, to expedite the amendment process:

- Minimize the need for amendments by carefully developing the budget and period of performance in the original CA application (see Chapter 3 and the *State Manual*)
- Anticipate the need for a formal amendment by closely monitoring site progress and urge the SPO to initiate the amendment process as early as possible

- Discuss potential amendments with GAB staff to clarify any administrative questions which may arise
- Meet with the SPO to discuss the amendment request and assist in preparing the application as necessary (the State may utilize the CA amendment short form, EPA Form 5700-31)
- Coordinate and, if possible, streamline amendment application review and concurrences (by communicating with necessary reviewers)
- Ensure that SCAP obligations and/or Regional contingency funds are consistent with the amendment request
- If possible, consolidate project modifications by awarding one amendment which incorporates all necessary changes.

MSCAs facilitate the transfer of funds between projects; however, these transfers still require a formal amendment. Fund transfers must also be consistent with the Region's SCAP. Additional information on CA amendments is provided in the *State Manual*.

4.1.6 Coordination with Other Regional Staff

Throughout the course of the RI/FS the RPM should maintain close contact with enforcement staff (Regional and/or State) and community relations staff (Regional and/or State). The RPM's role is that of a project manager, advocate, and facilitator. In coordinating with enforcement staff the RPM may:

- Transmit any information discovered during the RI/FS that may help identify potentially responsible parties (PRPs)
- Assist with the preparation of Notice Letters to PRPs
- Ensure maintenance of any confidential information obtained during the RI/FS
- Review schedules for PRP negotiations
- Participate in negotiations with PRPs following completion of the RI/FS
- Assist with the preparation of a Cost Recovery Summary.

In coordinating with community relations staff during the RI/FS the RPM may:

- Review site-specific CRP
- Participate in public meetings
- Develop fact sheets
- Respond to Freedom of Information Act requests
- Schedule and coordinate the public comment period following the draft FS Report completion

- Assist in preparation of the Responsiveness Summary.

The RPM should maintain close coordination with the GAB, ORC, and other appropriate Regional staff. At sites where a removal action has taken place, coordination with emergency response personnel is also imperative. Guidance for situations when a remedial project requires an emergency response is pending.

4.1.7 USACE and REM Contractor Technical Assistance

During an RI/FS at a State-lead site, the RPM may obtain technical assistance from the USACE and/or the REM contractors upon request. Assistance from the USACE during RI/FS may serve two purposes:

- Assures that the proposed remedial action can be engineered and constructed
- Ensures a smooth transition if the site is to become a Federal-lead project.

The REM contractors also may provide their experienced resources, if necessary. Types of review/assistance activities for which the REM contractor and the USACE may be requested include:

- Review of work assignments, work plan or subcontracting packages
- Participation in project review meetings
- Technical review of reports, plans, and specifications.

The USACE in certain cases also may become involved in a project to a much greater degree where they can provide specialized technical expertise, such as projects that involve dredging.

Technical assistance from the USACE is obtained through an Interagency Agreement (IAG). Generic IAGs for technical assistance during RI/FS projects should be executed by the Regions with the USACE Missouri River Division (MRD). To obtain technical assistance for a specific RI/FS project the RPM must prepare and issue a site-specific work assignment to USACE-MRD under the established IAG.

Technical assistance from the REM contractor is provided through the issuance of a work assignment. For further information on issuing a work assignment consult the *Superfund Federal-Lead Remedial Project Management Handbook,* December 1986 .

Technical assistance funds must be in the Region's SCAP.

4.1.8 Agency for Toxic Substances and Disease Registry (ATSDR) Health Assessments

Under the Superfund Amendments, ATSDR has been charged to conduct health assessments at NPL sites. ATSDR in consultation with EPA must set priorities for health assessments at NPL sites based on potential risk to human health and adequacy of existing data, recognizing also EPA's NPL and RI/FS schedules. To the extent practicable, ATSDR should complete health assessments before RI/FS completion. It should be noted, however, that ATSDR health assessments do not supercede risk assessments and endangerment assessments conducted by EPA during the RI/FS.

Final details and procedures for integrating ATSDR health assessment activities into the Superfund remedial process have not been finalized. For State-lead projects, ATSDR should work directly with their State agency counterparts. The RPM should be advised of progress on health assessments at State-lead projects.

4.2 SITE CHARACTERIZATION

Site characterization is one of the main functions of the RI process. The objective of site characterization is to collect and analyze sufficient information to determine the need for remedial actions, the appropriate extent of any remedial actions, the feasibility of potential remedial actions, and to conceptually plan the action. Site characterization activities provide the data to support the evaluations made in the concurrent FS. Typically, site characterization involves collecting all existing data concerning a site (part of the RI scoping), collecting new data through field studies, and following up initial field studies with additional studies, if required, to complete site characterization.

The RPM should oversee site characterization activities to the extent necessary to feel confident that the State is meeting the objectives of the project and that all activities are conducted in accordance with approved work plans, EPA policies and regulations, and specific terms of the CA.

4.2.1 RI Scoping

This activity involves gathering and reviewing all existing site data to characterize the site and to determine additional data needs. The data needs identified are the basis for the RI field studies. RI scoping is conducted prior to work plan development. The RPM's responsibilities during RI scoping are discussed in Chapter 3 of this manual.

As discussed in Chapter 3, RI scoping may result in a Regional management decision to conduct certain non-emergency removal actions (i.e., former Initial Remedial Measures [IRMs]) under the remedial program. This usually will be the case when urgency is not a critical factor and there is a 4 to 6 month lead time which allows competitive contracting procedures.

For projects which are designated as State-lead and which involve both removal and remedial activities, Regional management also must decide whether EPA or the State will assume the lead agency role for the removal action(s). Non-emergency removals at a State-lead site may be conducted by the REM contractors under the RPM's direction or by the State under the same CA executed for remedial activities. Guidance currently is being developed regarding the type of studies and documentation necessary prior to implementing a non-emergency removal (Engineering Evaluation/Cost Analysis). Headquarters also will develop guidance regarding removal actions implemented by States under CAs.

The RPM also must coordinate closely with the removal program in situations when emergency removal actions become necessary at a State-lead remedial site. This type of situation requires On-Scene Coordinator expertise and fast-track contractor activation. Headquarters also is developing guidance for the conduct of emergency removals during remedial projects.

The RPM should be aware of EPA's policy to provide PRPs the opportunity to perform removal actions pursuant to a CERCLA section 106 Administrative Order on consent. (See "*Guidance Memorandum on Use and Issuance of Administrative Orders Under CERCLA §106(a),*" September 8, 1983.) Close coordination with Regional enforcement staff is imperative.

4.2.2 Field Activities

The RPM should take an active role in oversight of field activities. Periodic site visits should be conducted to observe such activities as well drilling, sample collection, and sample shipment. Field activities must follow approved work plans, particularly the quality assurance project plan (QAPP) and site safety plan. It may be appropriate to enlist the cooperation of other Regional and Headquarters personnel such as Environmental Services Division (ESD) and Environmental Response Team (ERT) staff for overseeing these technical activities. The RPM (or other EPA personnel) does not have the authority to issue directions to State contractors. All directions must be channeled through the SPO.

Three common problems which cause project delays associated with this phase of the RI are:

- Inadequate technical performance of contractors or their subcontractors

- Inadequate processing and validation of analyzed samples

- Insufficient data to support decisions on remedial action.

These problems are discussed below, along with suggestions for reducing or alleviating these problems.

Technical performance of the contractor and subcontractors has in numerous cases delayed the RI/FS. The RPM should assess the SPO's level of experience in managing contractor-conducted field activities since this will in part determine the RPM's role in oversight of field activities. Inexperience with hazardous waste site investigations -- specifically, sampling techniques, sample quality assurance and chain-of-custody procedures -- has resulted in "lost" or unusable samples. Typical sampling errors include:

- Contaminated samples
- Non-homogeneous sample matrices
- Incorrect sample packaging for transport
- Insufficient sample volumes
- Insufficiently labeled samples
- Incomplete sample traffic reports.

If the RPM has reason to suspect that sampling is being conducted incorrectly, the RPM immediately should contact ESD staff for support or consultation.

The inexperience of other subcontractors also can be a source of on-site delay. For example, well drillers who normally install water supply wells or geotechnical drillers who perform soil test borings for foundation studies may be unfamiliar with the special precautions, requirements, and health and safety aspects of hazardous waste work. The RPM should discuss the need for potential subcontracts with the SPO to ensure that qualified subcontractors are used at the site.

The second major cause for delay during site characterization is the analysis of samples. First, difficulties may be encountered in obtaining an adequate laboratory to perform the analyses. Second, once submitted for analysis, validated results often are overdue. If the State chooses to use the EPA Contract Laboratory Program (CLP), the RPM can take certain actions to reduce or work around these delays:

- Coordinate closely with the Regional Sample Control Center to schedule lab analyses that avoid allocation shortfalls

- Review sampling plans carefully to eliminate unnecessary samples and/or sample analyses

- Encourage the use of field screening techniques to limit the number of samples sent for analyses

- Arrange for the State's contractor to receive raw data to allow some activities to continue while data are being validated (caution -- resources and time spent on site work based on unvalidated data may be lost if the data review reveals faults)

- Consider a phased sampling approach

- Expedite data validation through frequent communications with involved personnel.

If the State has indicated in its CA application that non-CLP laboratories will be used, the RPM must take steps to ensure that the analyses will be performed according to prescribed protocols and with necessary quality assurance/quality control procedures. The RPM also must ensure that the actual costs for sample analyses will reasonably reflect the approved cost estimates provided by the State in its CA application.

To ensure that non-CLP laboratories are acceptable for use during a State-lead RI/FS, the RPM may request that Regional ESD Quality Assurance Staff conduct an evaluation of proposed laboratories. Trained ESD Quality Assurance staff may "audit" these laboratories (prior to State initiation of field sampling) through on-site laboratory evaluations and specific performance audits. A non-CLP laboratory should not be approved for use under a CA unless it has effectively demonstrated that sample data packages equivalent to data from the CLP can be provided to the State at reasonable costs and within the specified time requirements.

Discovering near the end of the FS that the data developed during the RI are insufficient to support an evaluation of alternatives can cause significant project delays. This situation is most likely to occur when a single sampling event is used and the sample turn-around time is great. This situation can also result when too few samples are taken during the RI in an attempt to reduce RI costs. Not knowing the full extent of contamination, or finding some last minute surprise, can delay the FS schedule significantly. For this reason, the phased RI/FS approach is strongly encouraged. This approach, already mentioned in Chapter 3, can briefly be described as: (1) early screening of alternatives to help define data needs and the scope of the RI, (2) multiple sampling events, each contributing subsequent definitions of data needs, and (3) the use of analytical alternatives (such as field screening) to determine more quickly subsurface conditions.

4.2.3 Supplemental Data Needs

The RPM should meet with the SPO and State contractor to review analytical data and determine the need for further study at the earliest opportunity. This review may begin at the sample collection or field analysis stage. The RPM, SPO, and the State contractor must determine the following:

- Are the validated data sufficient to meet the objectives of the RI?
- Are the validated data adequate for purposes of remedial alternatives evaluation?
- Are the validated data sufficient to support enforcement or cost recovery actions?

If not, the RPM, SPO, and State contractor must develop an approach for collecting additional data to complete the site characterization with minimal schedule disruption.

It also may be determined that bench studies are necessary to further characterize a site or to evaluate potential remedies which are under detailed analysis. (Bench studies also may be conducted as part of the RD.) If bench studies are required during the RI/FS, the contractor must develop a draft experimental plan as part of the RI/FS SOW. Objectives of the bench or pilot studies must be clearly specified. Bench and pilot studies should be limited to alternatives which have survived the initial screening process. The RPM should coordinate the review of the experimental plan to ensure that the following are present:

- Clearly defined set of objectives
- Detailed work plan by task
- Schedule of completion
- Labor-cost estimate.

The implementation of bench studies also may require an amendment to the CA and an adjustment to the SCAP.

4.3 ALTERNATIVES SCREENING AND EVALUATION

Alternatives screening and evaluation is the foundation of the feasibility study portion of the RI/FS. Using site-specific data from pre-RI scoping and RI field studies, remedial alternatives within the general response categories are developed and evaluated in terms of:

- Public health impacts
- Environmental impacts
- Technical feasibility
- Institutional impacts
- Costs.

The screening of alternatives is a multi-stage process that begins early during the course of the RI. The reader is encouraged to review the more detailed discussions given in the *RI and FS Guidances*.

The RPM provides input at several points in the alternatives screening and evaluation process in order to ensure that a reasonable range of alternatives is considered. "Reasonable" implies not looking at the whole universe of alternatives to the detriment of the FS cost and schedule, while at the same time, not examining so few alternatives that viable options are not considered. Generally, the RPM provides input to the process during:

- The RI scoping and development of response objectives
- The RI, as data become available
- The pre-FS meeting, where the RI results are reviewed and the FS scope is refined
- The FS, as alternatives are evaluated in detail.

The RPM needs to develop a sense of what technologies are currently appropriate for given site conditions while also staying knowledgeable of the emerging technologies that may be appropriate in the near future. The RPM also must be cognizant of EPA policy changes that may affect alternatives selection. For example, the Superfund Amendments place a great emphasis on the long-term protection and reliability of remedial actions. The Amendments call for remedial actions which utilize permanent solutions and alternative treatment or resource recovery technologies to the maximum extent practicable. If a remedy in accordance with the preference for treatment and permanent solutions is not selected, an explanation must be published.

4.3.1 Technical Oversight During Feasibility Study

The RPM must ensure that all feasible remedial alternatives are given adequate consideration, are presented in a fashion amenable to decision-making, and that the SPO and State contractor complete these evaluations within the schedule agreed upon in the CA. To ensure these accomplishments, it is suggested that the RPM arrange for periodic meetings with the SPO and the State contractor to discuss progress, identify appropriate types of alternatives, highlight potential issues, plan the RI/FS Report review process, and identify any additional data needs, including bench and pilot studies.

4.3.2 Compliance with Other Environmental Statutes

As a general rule, the Agency's policy is to attain or exceed applicable or relevant and appropriate environmental and public health standards in CERCLA response actions unless specific circumstances, enumerated elsewhere, exist. (See "*CERCLA Compliance With Other Environmental Statutes* ," October 2, 1985, and section 300.68 of the *National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*, November 20, 1985).

The Superfund Amendments now require that remedial actions conducted on site shall meet the "applicable or relevant and appropriate standards, limitations, criteria, and requirements" (ARAR) of State and Federal environmental laws. The Superfund Amendments basically build upon EPA's site-specific approach to cleanup standards found in the *NCP*. Of particular importance to the Superfund program are the Resource Conservation and Recovery Act regulations pertaining to land disposal bans. The RPM must stay abreast of new developments in this area.

To the extent possible and appropriate, at least one remedial alternative shall be developed as part of the FS in each of the following categories:

- Alternatives for treatment or disposal in an off-site facility, as appropriate (See *"Procedures for Planning and Implementing CERCLA Delegations for Off-site Response Actions,"* May 6, 1985).
- Alternatives which attain applicable or relevant and appropriate Federal and State public health or environmental requirements.
- As appropriate, alternatives which exceed applicable or relevant and appropriate Federal and State public health or environmental requirements.
- As appropriate, alternatives which do not attain applicable or relevant and appropriate public health or environmental requirements but which will reduce the likelihood of present or future threat from the hazardous substances and that provide significant protection to public health and welfare and the environment. This must include an alternative which closely approaches the level of protection provided by applicable or relevant and appropriate requirements.
- A no action alternative.

The RPM is responsible for ensuring that the FS addresses each of the above alternatives as appropriate. In this regard it is necessary to inform the SPO and State contractor of applicable or relevant and appropriate requirements. Likewise, the SPO must advise the RPM and State contractor of any State requirements or standards which also may be applicable or relevant and appropriate.

During a State-lead FS, it is imperative that the RPM, SPO, and State contractor communicate frequently. The RPM must keep the SPO (and State contractor) informed of EPA policy developments. The RPM should routinely review ROD updates and communicate with the Headquarters Regional Coordinator in order to know current policies.

In situations where the chosen remedial alternative does not attain or exceed the applicable or relevant and appropriate standards, the FS, and ultimately the decision documents, must state the reasons. The RPM must ensure that this requirement is addressed and may be advised to seek advance concurrence from the AA/OSWER for a waiver from consistency with other environmental laws.

4.3.3 ROD Delegation

On March 24, 1986, the Administrator set forth current policy for the delegation of the selection of remedy responsibility to the Regional Administrators (RAs) on a site-specific basis. All site remedy selections generally will be delegated unless one or more of the following circumstances exist:

- Potential Fund Balancing (typically where the total cost of all site response is expected to exceed $40 million)
- Potential public interest exception
- Precedent setting or nationally significant circumstances.

When decision making authority is delegated, consultation with the AA/OSWER is required for sites involving:

- Ground water contamination due to multiple sources
- Betterment (when State preferred remedy is more expensive than the cost-effective alternative)
- Public interest exception
- Precedent setting or nationally significant circumstances.

The RA is responsible for determining whether it is appropriate to be delegated the remedial alternative selection. The RA must submit a letter to the AA/OSWER quarterly recommending which selections should be delegated, which require AA/OSWER consultation, and which should be retained by the AA/OSWER. The letter should include the criteria for the recommendation. Delegation letters can be prepared as early as the RI is complete but before the FS Report goes out for public comment.

The RPM may be asked to prepare the Delegation Letter and transmit it to the appropriate Regional personnel, particularly ORC, for review. The letter, signed by the RA, then is submitted to Headquarters (AA/OSWER with a copy for the HSCD Regional Coordinator). Upon receipt of a letter of recommendation, OERR will promptly evaluate RA recommendations and prepare for AA/OSWER signature a ROD delegation memorandum which lists sites for which remedy selection has been delegated. The memorandum will be sent to RAs at least one week before the new quarter begins.

If delegation with consultation is granted, the RPM will forward the ROD package or summary of the key issues through the RA to the AA/OSWER for consultation prior to ROD signature by the RA. Consultation may begin with a final draft FS Report prior to public comment or may occur immediately prior to ROD signature. Consultation should begin generally between the RPM and the HSCD Regional Coordinator and end with a final request by the RA and a response by the AA/OSWER or his designee.

The Delegation Letter, like all documents related to the draft ROD or Enforcement Decision Document (EDD), should be released only to EPA employees or contractors. In the case where the Delegation Letter may compromise EPA's enforcement activities it should be accompanied by a cover letter stating that the material is confidential and should not be released publicly.

4.4 APPROVAL OF RI/FS REPORT(S)

The RI/FS Report(s) is the final product of the RI/FS*. It summarizes the findings of the RI and clearly presents the alternatives evaluated during the FS. The report also should include a remedial action recommendation for consideration by the EPA decision-maker. In some cases, the recommended alternative will not be described at this stage, but after ROD approval. The RPM should ensure that the report(s) is complete and is presented in its proper format to facilitate the ROD process. The RPM also must coordinate the review and approval of the report(s). The RPM should:

- Meet with the SPO and State contractor to discuss report format and contents
- Review and provide comments on preliminary draft reports
- Coordinate draft report reviews with appropriate EPA personnel (Regional and Headquarters) including enforcement staff
- Coordinate draft report reviews with the USACE and REM Contractors as appropriate
- Ensure that the State provides for full public (including potentially responsible party) comment on the draft RI/FS Report [this also may involve public meeting(s)]. A two-week notice period followed by a minimum three-week public comment period is held to receive input on the draft RI/FS Report. The SPO must coordinate the public comment period with the RPM and the EPA Superfund community relations coordinator; following this period, the SPO prepares a responsiveness summary addressing the comments received. The RPM may assist the SPO in developing the responsiveness summary.
- Coordinate with enforcement staff to ensure a timely PRP negotiation moratorium
- Ensure that the SPO initiates intergovernmental review for the RD/RA project by sending the draft RI/FS Report to the State single point of contact
- Work with the SPO, as needed, to modify the report based on public comments
- Ensure that the appropriate changes appear in the final RI/FS Report (including the responsiveness summary -- see Chapter 5)
- Officially approve the final RI/FS Report in writing.

Information regarding an acceptable RI/FS report format is presented in the *RI Guidance* and *FS Guidance*.

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* Separate reports for the RI and FS may be developed depending on the site-specific situation.

4.5 RI/FS COMPLETION

Following completion of all of the work described in the CA SOW for RI/FS, satisfactory compliance with all special conditions, and receipt of EPA written approval of the final RI/FS Report, the SPO should notify the RPM that the RI/FS activities are completed. However, the RPM should be aware that final State financial accounting of all RI/FS expenditures may not be completed for some time. The State must make final payments on all outstanding vouchers and complete all necessary drawdowns under its letter of credit (RI/FS activity code). A standard special condition in all CAs requires that the State must submit a Financial Status Report (Standard Form 269) within 90 days after completion of each activity.

If the State is to maintain the lead for RD and the CA is to be amended, a RI/FS Progress Report (a narrative summary of final RI/FS technical and administrative tasks) may be submitted as part of the next routine Quarterly Report. The RI/FS Progress Report should include the following technical information:

- Brief summary of the RI/FS Report
- Dates of RI/FS start and completion
- Contractor(s) performing RI/FS work
- Significant problems encountered
- Recommended remedy
- Other information, as appropriate

The Progress Report also should include a summary of total RI/FS expenditures, explanation of significant cost overruns, and any other pertinent financial information.

If the RD is to be conducted as an EPA-lead project, the RPM should request that the SPO submit a copy of the State's site file so that all appropriate site information may be turned over to the Federal-lead project manager. Even if the project becomes an EPA-lead, the State will be given the opportunity to review and comment on design documents. EPA will be developing regulations concerning State involvement. If the State intends to have a management assistance role during the Federal-lead RD, the RPM should provide assistance to the SPO on preparing an appropriate CA amendment (see *State Manual*). In this case, a final technical and administrative summary of RI/FS activities conducted under the CA may be included in the next routine Quarterly Report submitted by the State under the management assistance CA.

If the State does not have a Fund-financed role during the RD, the CA for the RI/FS may be closed out. In this case the RPM should consult with GAB to determine the best method for CA close out (formal CA amendment or a letter signed by the Regional Administrator and appropriate State official). For information on CA closeout, refer to Chapter 8 of this manual.

ADDITIONAL SOURCES OF INFORMATION

"CERCLA Compliance with Other Environmental Statutes," AA/OSWER, October 2, 1985. (OSWER Directive 9234.0-2)

Field Standard Operating Procedures (FSOP) Manual, (OSWER Directive 9285.2)

Guidance Document for Developing Data Quality Objectives, Draft, November 5, 1985. (OSWER Directive 9234.0-3)

Guidance on Feasibility Studies Under CERCLA, OERR and OWPE, June 1985. (OSWER Directive 9355.0-6B)

Guidance on Remedial Investigations Under CERCLA, OERR and OWPE, June 1985. (OSWER Directive 9355.0-5C)

National Oil and Hazardous Substances Pollution Contingency Plan (47 FR 31180), November 20, 1985.

State Participation in the Superfund Program, Volume I, OERR, February 1984. (OSWER Directive 9375.1-2)

Superfund Exposure Assessment Manual, Draft, January 14, 1986. (OSWER Directive 9285.5-1)

Superfund Public Health Evaluation Manual, draft, December 18, 1985. (OSWER Directive 9285.4-1)

User's Guide to the EPA Contract Laboratory Program, OERR, October 1984. (OSWER Directive 9240.0-1)

5. RECORD OF DECISION AND TRANSITION TO DESIGN

Preparation and approval of the Record of Decision (ROD) are crucial steps in the remedial process. A ROD[*] is required for all remedial actions financed with monies from the Trust Fund. The ROD documents the Agency's remedial alternative decision making process and demonstrates that the requirements of CERCLA and the *National Oil and Hazardous Substances Pollution Contingency Plan (NCP)*, November 20, 1985 have been met. The ROD also provides the basis for future cost recovery actions that may be taken with regard to site remediation under CERCLA.

The RPM has an extremely important role in the ROD process and transition to design. The RPM coordinates the entire ROD process and oversees the transition from RI/FS to remedial design and construction. The activities which take place during this phase are shown in Exhibit 5-1. This chapter describes the activities of the RPM and others during the ROD process and transition to design. These include:

- Ongoing project management
- The ROD process (preparation through approval)
- Transition to remedial design (RD).

In coordinating the preparation, review and approval of the ROD, the RPM must work closely with the representative from the Office of Regional Counsel (ORC) assigned to the project. The project attorney will be responsible for assuring legal sufficiency of the Regional ROD process, the administrative record, and the ROD document itself, while the RPM assures program compliance and technical sufficiency.

Many Regions are now using a ROD Project Team concept which has proven to be successful. The ROD Project Team would consist of the RPM, and representatives of the following:

- RI/FS contractor
- State
- ORC
- Enforcement
- Regional Superfund Community Relations Coordinator
- Other relevant EPA programs such as the RCRA, Toxics, Air and /or Water Offices
- Headquarters (HSCD) Regional Coordinator (optional).

By including all these members in a team, the ROD process can be greatly expedited since relevant concerns are uncovered early and hopefully can be resolved quickly.

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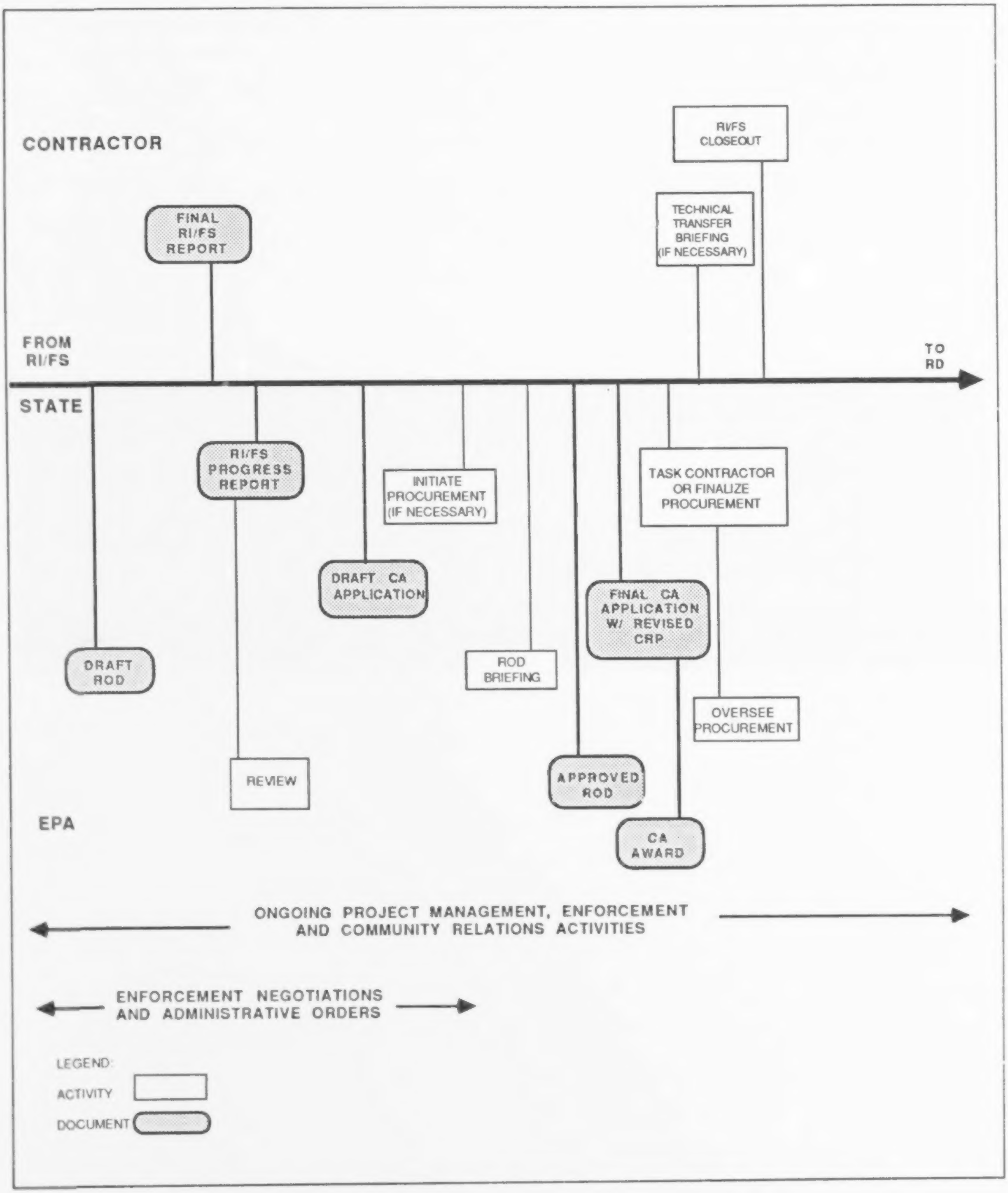
[*] For enforcement lead sites, a Negotiation Decision Document (NDD), followed by an Enforcement Decision Document (EDD), will be prepared (see "*Preparation of Decision Document for Approving Fund-Financed and Potentially Responsible Party Remedial Actions Under CERCLA*," February 27, 1984, hereafter referred to as the *ROD Guidance*).

EXHIBIT 5-1
Record of Decision (ROD) and Transition to Design


CONTRACTOR
FINAL RI/FS REPORT
RI/FS CLOSEOUT
TECHNICAL TRANSFER BRIEFING (IF NECESSARY)
FROM RI/FS
TO RD
STATE
RI/FS PROGRESS REPORT
INITIATE PROCUREMENT (IF NECESSARY)
TASK CONTRACTOR OR FINALIZE PROCUREMENT
DRAFT CA APPLICATION
FINAL CA APPLICATION W/ REVISED CRP
DRAFT ROD
ROD BRIEFING
OVERSEE PROCUREMENT
REVIEW
APPROVED ROD
EPA
CA AWARD
ONGOING PROJECT MANAGEMENT, ENFORCEMENT AND COMMUNITY RELATIONS ACTIVITIES
ENFORCEMENT NEGOTIATIONS AND ADMINISTRATIVE ORDERS
LEGEND:
ACTIVITY
DOCUMENT

5.1 ONGOING PROJECT MANAGEMENT ACTIVITIES

During the course of the ROD process there are a number of ongoing project management activities that are necessary to ensure a smooth process and transition from RI/FS to Remedial Design (RD). These are outlined below.

5.1.1 Coordination with State

Throughout the ROD process the RPM must coordinate with State officials to receive their input on all aspects of the ROD process and to ensure a smooth transition to design. In fact, a State representative should be a member of the ROD project team and, in many cases, may prepare much of the supporting documentation for the ROD. For State-lead projects, the ROD process should be a joint EPA/State effort. Specifically, the RPM should:

- Participate in a pre-ROD meeting with the State and State contractor
- Invite State officials to participate in EPA's pre-ROD and ROD briefings
- Solicit State comments on the draft ROD, Responsiveness Summary, and supporting documentation (if prepared by EPA)
- Assist the SPO to develop the draft Cooperative Agreement (CA) application for RD
- Ensure State (60-day) intergovernmental review for the proposed RD/RA project (may begin during public comment period on the draft RI/FS Report).

If a formal intergovernmental review process has not been established within a State the RPM must ensure that copies of the draft RI/FS are sent to appropriate State and local officials (see also Appendix D of the *State Manual*).

Most importantly, the RPM must obtain the State's official concurrence with the recommended alternative in a letter from the appropriate State official to the Regional Administrator. The RPM should remind State officials that the State must make assurances to provide all future operation and maintenance and that the State must pay 10 percent of remedial implementation costs associated with the selected remedy at a privately-owned or -operated site. If the site was publicly-operated at the time of disposal, the State must pay at least 50 percent of all response costs (removal and remedial). The State cost share is not due until the remedial action is implemented. The State also must make an assurance of the availability of an off-site disposal facility, if part of the remedy. The Superfund Amendments add two assurances that the State must make:

- Effective October 17, 1989, EPA will not fund any remedial actions requiring the use of treatment or disposal facilities unless the State enters into a contract or CA assuring that it has adequate capacity for the destruction, treatment or secure disposition of all hazardous waste (including Superfund wastes) expected to be generated in the 20-year period following the date of the assurance
- If the remedy involves the acquisition of real property by EPA, the State must make an assurance to accept transfer of the property following completion of the remedial action.

Guidance is pending on both of these new assurances.

Concurrent with the ROD Process, the RPM should assist the State Project Officer (SPO) in developing the application to encompass RD activities. In some cases RI/FS and RD will be included in one CA application. The RD funds can then be added to the CA award after approval of the ROD without additional paperwork by the State. In any case, the RD CA should be executed soon after the ROD is signed, so as to minimize the RD start-up period. For further discussion of developing and executing a CA refer to Chapter 3 of this manual or the *State Manual*.

5.1.2 Data Reporting and Record Keeping

During the ROD process the RPM must maintain full documentation of all site data with particular concern paid to any confidential information that may, if released, compromise EPA's ability to negotiate with Potentially Responsible Parties (PRPs). Generally, any information used in selecting the remedy is part of the administrative record and is discoverable under the Freedom of Information Act. Documents relevant to this phase of the remedial process include:

- ROD Delegation Analysis Summary
- Responsiveness Summary
- Intergovernmental Review Comments
- State Concurrence letter
- Final ROD.

These basic documents should be included in the Administrative Record required by the Superfund Amendments. In addition, all written correspondence regarding the ROD process should be kept as well as written documentation of any important conversations.

The RPM must also check the approved Superfund Comprehensive Accomplishments Plan (SCAP) budget to ensure that funds are available to cover the costs of RD for the selected remedy. This determination should be made well in advance of submitting the draft RI/FS for public comment. The RPM should also begin to consider the timing of the remedial action funding needs as related to the current or next year's SCAP.

The CERCLA Information System (CERCLIS) data management system must also be updated to include information relevant to the ROD process. Planned ROD start dates for all sites with expected remedial design obligations for the upcoming fiscal year should be entered at the time of the final SCAP submittal (August 31). Additionally, actual ROD start and completion dates are to be entered. The ROD start corresponds to the date the FS goes out for public comment, and the ROD completion date corresponds to the date the ROD is signed by the Regional Administrator (RA) or Assistant Administrator for the Office of Solid Waste and Emergency Response (AA/OSWER). The RPM should ensure that accurate information is transmitted to the regional contact working with the CERCLIS system.

5.1.3 Coordination with Regional Staff

During the ROD process it is imperative that the RPM coordinate closely with key regional staff on the planning of the ROD, resolution of issues and the schedule for ROD signature. These staff and their roles during the ROD process are described below:

- Enforcement (technical and ORC) may be actively negotiating with PRPs to conduct the remedial design and remedial action. If EPA decides to negotiate with PRPs for the RD/RA, the Superfund Amendments state that another special notice, apart from the public notice, must be sent to PRPs, the State, and Federal Resource Trustees. Notice for RD/RA negotiations should be given as early as possible, but no later than when EPA and the State have identified a preferred alternative. Again, as with the RI/FS procedures, the PRPs have 60 days to make a good faith proposal to conduct or finance the RD and RA. During this time, EPA may not initiate remedial action, but may initiate design activities. If PRPs do not submit a good faith proposal within 60 days of notice receipt, EPA may initiate a Fund-financed remedial action. If a good faith proposal is submitted, the moratorium continues for 120 days from the date of notice while EPA evaluates the proposal.

  The RPM must maintain close communication with enforcement staff throughout the ROD process. The RPM may be requested to provide technical support before or during negotiations with PRP's. In preparation for negotiations, the RPM should be able to provide enforcement staff, including ORC, with complete information regarding the site, the RI/FS and associated costs, and the draft ROD. The RPM is EPA's "expert" on the remedial project and, as such, must be fully prepared and willing to assist enforcement staff agency negotiations with PRPs.

- Regional Counsel is responsible for ensuring that all enforcement sensitive issues are properly presented and that the requirements of CERCLA, the *NCP* and other environmental laws have been met. The ORC must concur on the ROD before it is presented for approval. The ORC should coordinate the resolution of issues of national significance with the Office of General Counsel in Headquarters.

- RCRA Program staff must review the ROD for an off-site remedial action involving the treatment, storage, destruction or disposal of hazardous wastes to ensure consistency with RCRA regulations and technical standards. The RPM should refer to the recent off-site policy, *"Procedure for Planning and Implementing Off-Site Response Actions,"* May 6, 1985. For on-site remedies, the RPM may conduct this review (if familiar with RCRA standards).

- Community Relations staff should verify that all community relations plan (CRP) activities regarding public comment on the RI/FS are complete. The RPM should coordinate with community relations staff when preparing the responsiveness summary and to provide input to the revised CRP based on the approved ROD.

- Other Regional Program staff, from such programs as the Office of Drinking Water and the Office of Pesticides and Toxic Substances should verify that the recommended remedy is consistent with other environmental statutes, regulations, or program activities.

5.1.4 Coordination with Headquarters and Other Interested Parties

Headquarters' involvement with the ROD process will vary depending on whether ROD approval authority has been delegated to the RA (see section 4.3.4 in previous chapter) and on the complexity of technical and policy issues regarding the site. In either case, an open dialogue and exchange of information should be maintained between the Region and Headquarters. Headquarters offices, at this point, serve as facilitators. The primary point of contact for the RPM is the State-lead Regional Coordinator in the Hazardous Site Control Division (HSCD). Similarly, Regional Counsel must communicate with their Headquarters' counterparts in the Office of General Counsel and the Office of Enforcement and Compliance Monitoring.

Depending on the site-specific situation, other Federal agencies such as the Agency for Toxic Substances and Disease Registry, the Federal Emergency Management Agency, or the U.S. Army Corps of Engineers (USACE) may become involved in reviewing appropriate documents and assisting in issue resolution.

5.2 ROD PROCESS

The RPM is responsible for preparing and coordinating the review and approval of the ROD. The existing ROD process for State-lead sites is illustrated in Exhibit 5-2. Each of these activities is described below with appropriate guidance for the RPM.

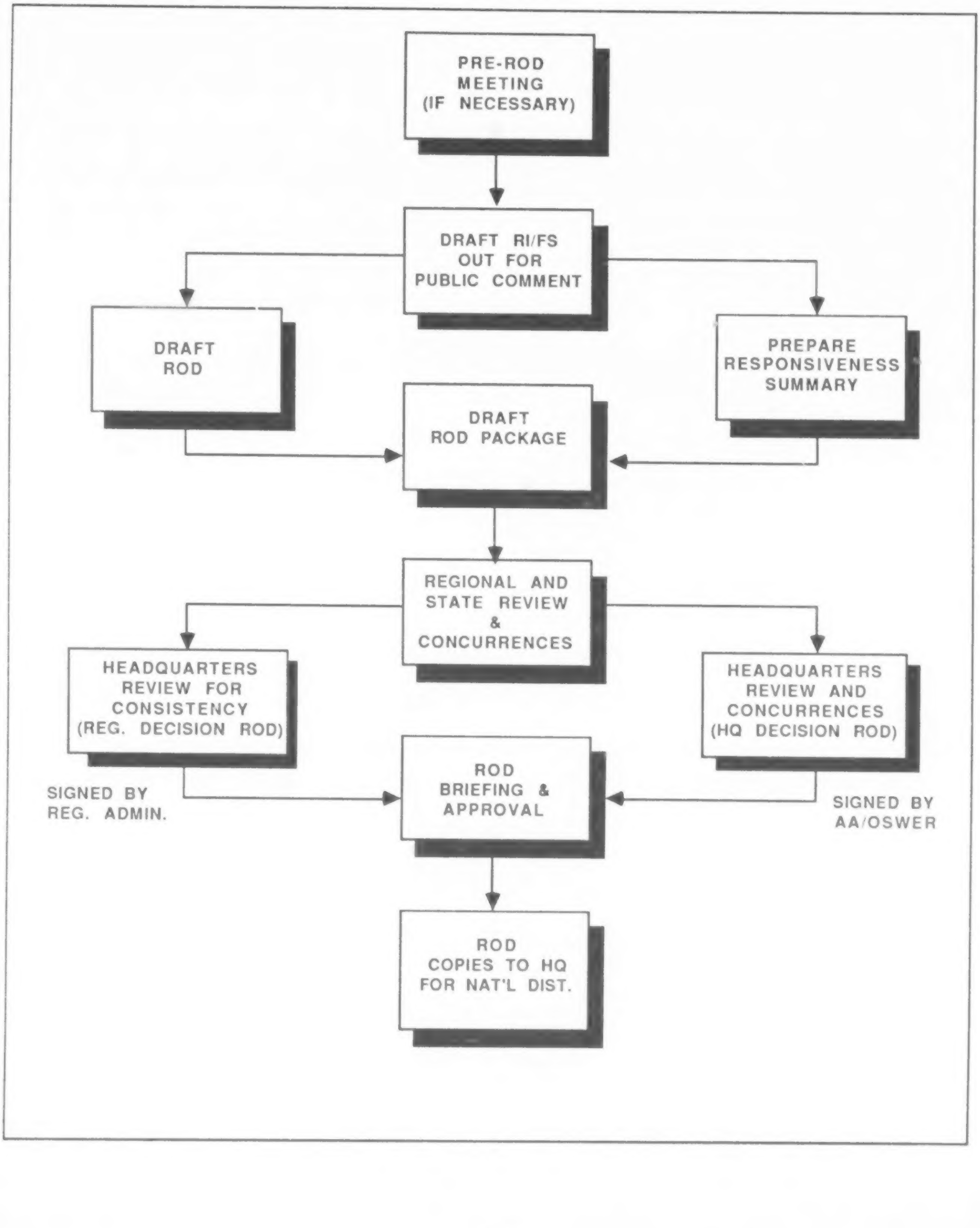
5.2.1 Pre-ROD Meeting

Prior to submitting the RI/FS Report for public comment, the RPM should arrange and coordinate a pre-ROD meeting with the State, State contractor, Regional Counsel, Enforcement, Superfund Community Relations and other appropriate personnel to discuss the draft RI/FS. Two purposes of this meeting are to identify data gaps in the RI/FS and develop a schedule for completing the ROD process. Data gaps should be minimal if the RPM closely monitored the State's preparation of the RI/FS. A key purpose of this meeting is to identify and resolve remaining issues related to the alternatives analyses and remedy selection. A pre-ROD briefing for Headquarters staff, prior to transmittal of the RI/FS Report for public comment, may be necessary for technically complex sites or when significant policy issues exist. For example, when the selected remedy does not attain or exceed applicable or relevent and appropriate environmental standards, a pre-ROD briefing for Headquarters staff usually is required.

5.2.2 ROD Package

Concurrent with the RI/FS public comment period, the RPM should prepare a draft ROD. Portions of this responsibility may be taken by the State, but the RPM is ultimately responsible for final preparation of the ROD as an official EPA decision document. The content and format for the ROD are described in Exhibit 5-3 (see also the *ROD Guidance*). The RPM and SPO should also review previously approved RODs which focus on similar issues and remedial decisions. EPA supports several

EXHIBIT 5-2
ROD Process


PRE-ROD MEETING (IF NECESSARY)
DRAFT RI/FS OUT FOR PUBLIC COMMENT
DRAFT ROD
PREPARE RESPONSIVENESS SUMMARY
DRAFT ROD PACKAGE
REGIONAL AND STATE REVIEW & CONCURRENCES
HEADQUARTERS REVIEW FOR CONSISTENCY (REG. DECISION ROD)
HEADQUARTERS REVIEW AND CONCURRENCES (HQ DECISION ROD)
SIGNED BY REG. ADMIN.
ROD BRIEFING & APPROVAL
SIGNED BY AA/OSWER
ROD COPIES TO HQ FOR NAT'L DIST.

efforts that compile all signed RODs, develop ROD Abstracts, and categorize RODs by selected remedies. RPMs should contact the HSCD Regional Coordinator for further information on the availability of *ROD Annual Reports*, *ROD Updates* and related efforts. The RPM must ensure that recommended decisions regarding remedial actions are consistent with current EPA policies. The ROD Package consists of:

- ROD
- Summary of Remedial Alternative Selection
- Responsiveness Summary.

In order to expedite the ROD process, as much as possible of the ROD package should be prepared during, or before, the public comment period. An early draft of the ROD Package will serve to clarify issues that need to be addressed. The RPM may request the Federal-lead remedial planning (REM) contractor assistance in preparing the ROD Package. The following three sections describe these ROD Package elements.

5.2.2.1 ROD

The ROD is a short document (2-5 pages), signed by either the RA or AA/OSWER, that officially documents the remedy selection. It has three sections:

- Documents Reviewed -- lists the documents reviewed in selecting among remedial alternatives; this list would include but is not limited to the RI/FS Report, the Summary of Remedial Alternatives Selection, and the Responsiveness Summary

- Description of Selected Remedy -- describes the major components of the remedy and operation and maintenance requirements (if applicable)

- Declarations -- documents that the decision is consistent with CERCLA and the *NCP*, that it is cost effective, and provides adequate protection of public health, welfare and the environment.

The content and format for the ROD are further described in Exhibit 5-3.

5.2.2.2 Summary of Remedial Alternative Selection

The Summary provides detailed information on the remedial alternatives reviewed during the FS and ROD process. The Summary of Remedial Alternative Selection must discuss:

- Consistency with section 121 of the Superfund Amendments

- No-action alternative

- Extent of remedy and compliance with other environmental statutes

- Cost estimates

- Cost-effectiveness evaluation

EXHIBIT 5-3
Record of Decision
Remedial Alternative Selection

SITE: [Site name, location]

DOCUMENTS REVIEWED

I am basing my decision primarily on the following documents describing the analysis of cost-effectiveness of remedial alternatives for the [site name]:

- [Site name] Remedial Investigation
- [Site name] Feasibility Study
- Summary of Remedial Alternative Selection
- Responsiveness Summary
- [Other relevant reports or documentation of the remedy selection process]

DESCRIPTION OF SELECTED REMEDY

- [List major components of remedy]
- [List operation and maintenance requirements if funding will be requested]

Note: Care must be taken to list all documents used to reach the final decision. Secondary references included in the listed documents need not be listed here.

DECLARATIONS

Consistent with the Comprehensive Environmental Response Compensation, and Liability Act of 1980 (CERCLA), and the National Contingency Plan (40 CFR Part 300), I have determined that the [description of remedy] at the [site name] is a cost-effective remedy and provides adequate protection of public health, welfare, and the environment. The State of [State name] has been consulted and agrees with the approved remedy. [Include the following if appropriate.] In addition, the action will require future operation and maintenance activities to ensure the continued effectiveness of the remedy. These activities will be considered part of the approved action and eligible for Trust Fund monies for a period of [insert funding period not to exceed 1 year].

I have also determined that the action being taken is appropriate when balanced against the availability of Trust Fund monies for use at other sites. [Include the following sentence if remedy involves off-site action.] In addition, the off-site transport, storage, destruction, treatment, or secure disposition [use appropriate wording based on actual remedy] is more cost-effective than other remedial action, [include the following if appropriate] and will create new capacity to manage hazardous waste, [include the following if appropriate] and is necessary to protect public health, welfare or the environment.

Note:Language for fund balancing waivers or waivers from other environmental regulations will be worked out on a site-specific basis.

[Include the following if appropriate.] The State [or EPA] will undertake an additional remedial investigation/feasibility study to evaluate [describe scope of RI/FS]. If additional remedial actions are determined to be necessary a Record of Decision will be prepared for approval of the future remedial action.

____
Date

____
Assistant Administrator
Office of Solid Waste and EmergencyResponse
or
Regional Administrator

- Off-site transport, storage, treatment, destruction or disposal of hazardous wastes (if applicable) and compliance with CERCLA section 101(24)

- Responsiveness Summary

- Operation and Maintenance (O&M).

Other topics that may be appropriate depending on site-specific conditions should also be included in the ROD text.

5.2.3 Responsiveness Summary

Following completion of the public comment period, a responsiveness summary should be prepared as an attachment to the ROD. The responsiveness summary addresses all comments submitted by the public, PRPs, and States. The responsiveness summary is often prepared by the State or State contractor but ultimately the RPM is responsible for ensuring its accuracy and completeness. The responsiveness summary documents for public record:

- Coordination with enforcement staff

- Comments raised before or during the public comment period on the draft RI/FS Report

- How EPA and the State considered and responded to these comments.

Further information on the format and content of a responsiveness summary is presented in the *ROD Guidance*. In preparing the responsiveness summary, the RPM should coordinate closely with Superfund community relations staff to obtain their input. The draft ROD and the recommended remedy may need to be revised in response to public comment.

5.2.4 Draft ROD and Responsiveness Summary Review

The State and appropriate Regional offices should review and concur on the draft ROD and responsiveness summary. The State's concurrence should be documented in a letter from the appropriate State official to the Regional Administrator. The Regional review process should include all concerned offices, but at a minimum should include ORC and enforcement staff.

The key to a smooth, expeditious review process is the early involvement of the concerned reviewers. By seeking State, ORC, enforcement, HSCD and other relevant inputs during the RI/FS, and through effective pre-ROD meetings, the RPM can minimize the occurrence of last minute issues and concerns. If ROD approval is retained by Headquarters, or consultation is required, HSCD will review the draft ROD to ensure consistent decision-making among the Regions and adherence with the latest Agency policies.

5.2.5 ROD Approval

The last step in the ROD process is the ROD briefing held to obtain the Regional or Assistant Administrator's approval of the recommended action. The format and content for ROD briefing materials are presented in the *ROD Guidance*. The RPM will

RPM will usually prepare the ROD briefing materials and may be asked to present them to the Regional Administrator. The RPM should consider attending other ROD briefings in the Region as a preparatory exercise.

For RODs which must be approved by the AA/OSWER the RPM should prepare and coordinate the State and Regional review prior to submission to EPA Headquarters. The official submission should be sent to the AA/OSWER, and should include a cover memorandum from the Regional Administrator. The memo should summarize the proposed project and present the State and Region's recommendation to approve the action. A copy of the complete submission should be sent directly to the Director, HSCD. The appropriate HSCD Regional Coordinator will be responsible for reviewing the submission and for preparing the briefing for the AA/OSWER. The Regional Coordinator may request assistance and/or information from the RPM.

During the briefing to the RA or the AA/OSWER, a number of last-minute questions or issues may arise. The RPM is responsible for the coordination of last-minute issue resolution. The RA or AA/OSWER may also request that modifications be made to the ROD documents before signature. The RPM should make any necessary changes to the ROD package as quickly as possible and alert the SPO that changes have been made. Once the RA or AA/OSWER has approved the ROD, the RPM is responsible for ensuring that copies are sent to all appropriate offices (Regional Superfund program, ORC, Grants Administration Branch (GAB), HSCD (through the Regional Coordinator) and the State (through the SPO)).

5.3 TRANSITION TO DESIGN

During the ROD process there are a number of steps the RPM can take to ensure a smooth transition to the next phase of the remedial process -- RD. If all activities are coordinated properly, the lag time between ROD approval and RD initiation can be minimal. To accomplish this transition the RPM must:

- Coordinate with enforcement staff
- Encourage the State to initiate preliminary design procurement efforts
- Draft and finalize the CA for design with the State.

The RPM also should confer with enforcement staff to determine (prior to RD startup) whether PRPs will conduct both the RD and RA. These activities are discussed in the next chapter and in *Superfund Remedial Design and Remedial Action Guidance*, revised June, 1986.

ADDITIONAL SOURCES OF INFORMATION

"CERCLA Compliance with Other Environmental Statutes," AA/OSWER, October 2, 1985. (OSWER Directive 9234.0-2)

Community Relations in Superfund: A Handbook, OSWER, September 1983 (under revision). (OSWER Directive 9230.0-3)

Guidance on CERCLA Compliance with Other Environmental Statutes (RCRA Requirements), Draft, December 10, 1985. (OSWER Directive 9234.0-3)

National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), November 20, 1985.

Preparation of Decision Documents for Approving Fund-Financed and Potentially Responsible Party Remedial Actions Under CERCLA, OERR, February 2, 1985. (OSWER Directive 9340.2-1)

"Procedures for Planning and Implementing Off-Site Response Actions," AA/OSWER, May 6, 1985. (OSWER Directive 9330.2-1)

Record of Decision Annual Report, OERR

State Participation in the Superfund Program, OERR, February 1984. (OSWER Directive 9375.1-2)

"Superfund Records of Decision Update," OERR, Monthly.

Superfund Remedial Design and Remedial Action Guidance, OERR, June 1986. (OSWER Directive 9355.0-4)

6. REMEDIAL DESIGN

The purpose of the remedial design (RD) is to develop detailed plans and specifications for conducting the remedial action (RA). For State-lead RD, the State is responsible for procuring an architectural/engineering (A/E) firm to design the remedy approved in the Record of Decision (ROD) by EPA.*

In order to provide program continuity and expedite the RD activity, States may retain the same A/E firm for the remedial investigation/ feasibility study (RI/FS), RD and construction oversight. This option saves considerable time by eliminating the need for separate State procurements. It also reduces the time required to conduct subsequent activities because the A/E firm becomes familiar with site conditions and can develop specific expertise regarding the site and the selected remedy. This approach is of additional benefit to the State and EPA because it promotes more efficient and effective project management and scheduling.

If the State chooses to undertake a separate procurement for an A/E firm to conduct the RD, the RPM must ensure that the procurement is in accordance with 40 CFR Part 33 and the *State Manual,* Volume II, "State Procurement Under Superfund Cooperative Agreements," March 1986.

The *Superfund Remedial Design and Remedial Action Guidance Document*, June 1986, (hereafter referred to as the *RD/RA Guidance)* contains a detailed description of the RD/RA process, and will serve as the primary reference document for this and the following chapter on RA. As in other chapters, Exhibit 6-1 highlights the major activities that occur during this stage of a remedial response.

6.1 ONGOING PROJECT MANAGEMENT ACTIVITIES

Numerous ongoing project management activities are common to all phases of remedial design activity. Specific actions required during the remedial design process are outlined below.

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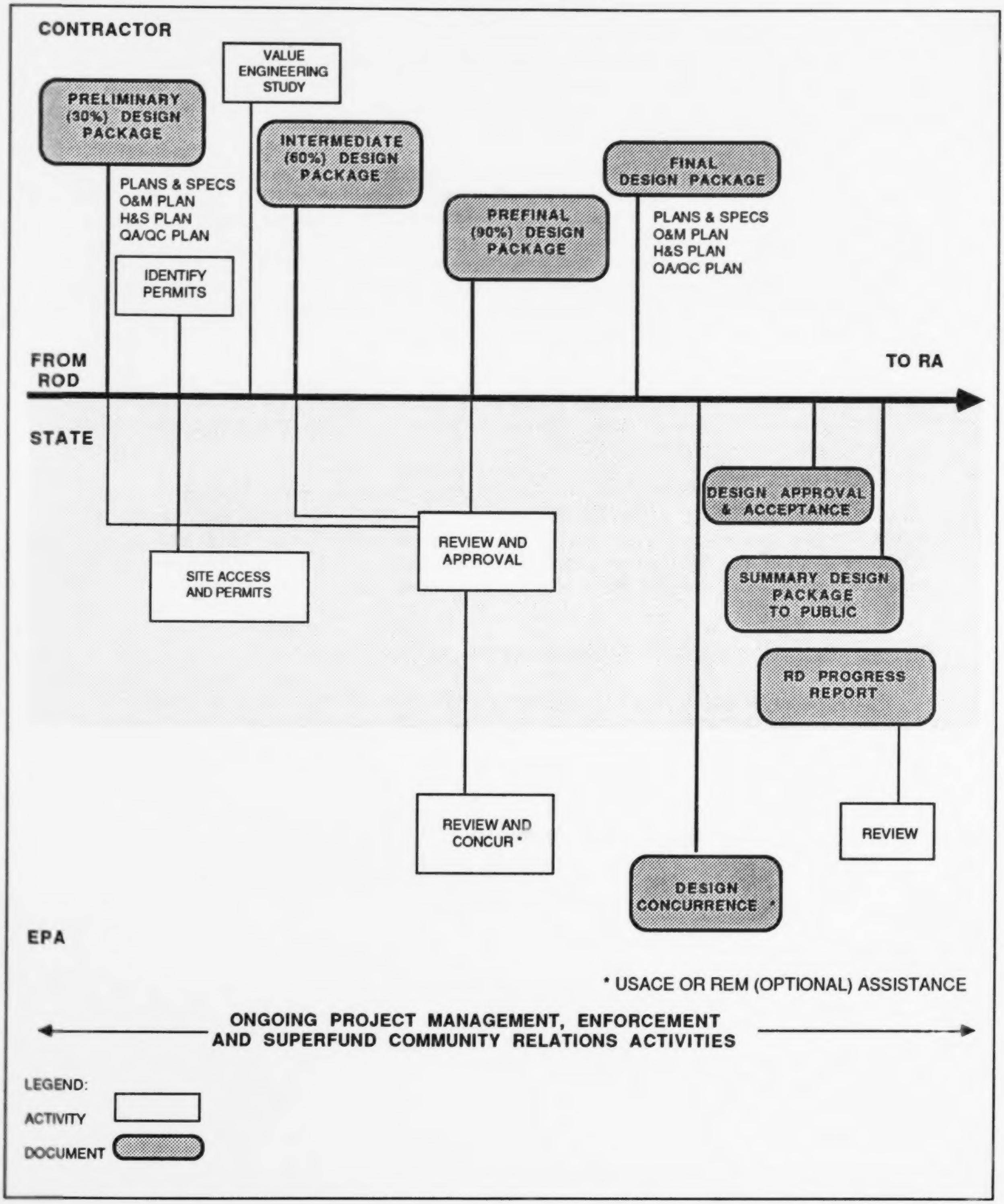
* A State may elect not to take lead responsibility for RD, and thus the RPM would conduct the RD activity phases through an interagency agreement with the U.S. Army Corps of Engineers (USACE). The RPM should refer to the *Superfund Federal-Lead Remedial Project Management Handbook* for such projects.

EXHIBIT 6-1
Remedial Design (RD)



6.1.1 Remedial Design Cooperative Agreement Execution

In initiating remedial design activities at a State-lead site, the EPA RPM must work closely with State officials to process a Cooperative Agreement (CA) or CA amendment. This should be accomplished concurrent with the ROD process so it may be executed soon after the ROD is signed. Either an existing CA will be amended or a new CA will be developed for RD.

The State is responsible for preparing the statement of work (SOW) for RD which should clearly describe the project scope and required design documents. The RPM may work with the State Project Officer (SPO) to develop the SOW. The RPM should ensure that the SPO uses the *RD/RA Guidance* while developing the SOW. The SOW for remedial design will require the State-procured A/E firm to prepare design documents to accomplish the remedial action as defined in the ROD. An example SOW for RD is given as an appendix to the *RD/RA Guidance*.

If the approved ROD includes a remedy that requires post-construction operation and maintenance (O&M), the SOW in the RD application should include a task to develop an O&M plan. The plan should contain at least the following elements:

- Designation of the organizational unit of the State government responsible for O&M
- Identification of the availability of State funding mechanisms for O&M activities
- Milestone dates for assuming O&M responsibilities
- Description and duration of O&M activities
- O&M staffing needs
- Operational performance standards
- Contingency plan for handling abnormal occurances
- Safety requirements for O&M activities
- Equipment and material requirements
- Estimates of annual O&M costs
- Description of site use and disposition of facilities following completion of O&M.

The RPM and State officials should refer to Chapter 3 of this manual and to the *State Manual* for specific information for the initiation, execution, and amendment of CAs. The RPM also must ensure that intergovernmental review for the RD/RA project is completed prior to award of the RD CA.

6.1.2 Data Reporting and Record Keeping

The RPM has the responsibility for maintaining thorough, accurate records during remedial design. The RPM must maintain site files and relevant documentation that will support project oversight and potential cost recovery actions. These may include:

- Quarterly Reports
- Correspondence by EPA, State, or contractors
- Progress reports
- Contractor invoices
- Draft and final design reports

The RPM also may be requested to assist enforcement staff in preparing a cost recovery summary at the completion of remedial design.

The periodic updating of information for EPA's automated data systems is a continuing responsibility of the RPM. These systems include:

- CERCLIS (CERCLA Information System) -- RD start (date RD funds obligated) and end date (date RA invitation for bid advertised) for remedial design must be entered.

- SCAP (Superfund Comprehensive Accomplishments Plan) -- The RPM must coordinate with the Regional SCAP contact to ensure that accurate information on RD activities appears on the SCAP prior to the start of remedial design. Funding for technical assistance during RD must also be shown if the RPM needs this support. The SCAP must be updated as remedial design progresses so that funding needs for subsequent construction are identified in a timely fashion.

- FMS (Financial Management System) -- Monthly and ad hoc financial status reports on the remedial program must be reviewed for accuracy by the RPM. The RPM should consult the *Letter of Credit Users Manual.*

6.1.3 Technical Progress Oversight

The RPM must oversee technical progress during RD. The RPM may obtain assistance for review of plans and specification from Federal-lead remedial planning (REM) contractors or the USACE. The RPM may obtain this assistance through a work assignment (for the REM contractor) or an Interagency Agreement (for the USACE). The RPM should consult the REM-Regional Project Officer for assistance. REM or USACE technical assistance is encouraged unless the RPM has specific experience in design document review.

6.1.4 Coordination with Community Relations

The SPO and RPM must coordinate with the Regional Superfund Community Relations Coordinator in order to :

- Review revised site-specific community relations plan (CRP)
- Provide material to local information repositories
- Issuance of press releases
- Develop fact sheets and information materials.

This will ensure that the public is involved during RD. The RPM should provide assistance to the State as required with community relations activities.

Based on input from the above public participation process, the site CRP must be revised, as necessary, to reflect knowledge of citizen concerns and involvement. An updated fact sheet and public notice of completion of the engineering design must be prepared and distributed as part of the on-going community relations process.

6.2 DESIGN INITIATION

Following the selection of a remedy, approval of the ROD, and execution of the RD CA or amendment, design activities may be initiated. The RPM must provide the following assistance to the State.

6.2.1 Approved ROD, Final RI/FS Report, and Pre-Design Report

The RPM must provide a copy of the approved ROD to the State as soon as possible after ROD approval. If the State was not the lead party for the RI/FS, the RPM should also provide the State with a copy of the final RI/FS Report(s).

If the RI/FS was Federal-lead, the RPM should ensure that a Pre-design Report is prepared by the REM contractor and transmitted to the State. The Pre-design report describes the engineering parameters and institutional concerns of the selected remedy. The report packages together all pertinent project information needed for transferring the project to the State for remedial design. It is critical that the Pre-design Report be completed within two weeks following remedy selection (ROD approval). The cost of the Report should be limited to approximately five percent of the cost of the feasibility study. Exhibit 6-2 presents a suggested outline for the Pre-design Report. The State-lead RPM must be prepared to answer any questions the State may have about the Federal-lead RI/FS.

6.2.2 Remedial Design Procurement

The State is responsible for all contractual and administrative issues associated with procurements under a CA. The *State Manual*, Volume II, contains a detailed description of the procurement process and will serve as a primary reference. Additionally, Chapter 3 of this manual also offers guidance on State procurement. The RPM's role during procurement is one of oversight and assistance.

As discussed earlier, States may retain the A/E firm that provided RI/FS services for the RD activity and for A/E services during the RA. EPA's "*Procurement Under Assistance Agreements*" regulation, 40 CFR 33, requires that if the State is to retain the same A/E firm throughout the remedial process, the original State request for proposals (RFPs) for the RI/FS must also include RD and RA oversight activities. The RFP must indicate that the RI/FS activity is the initial activity that will be authorized and that an option for RD and RA oversight may be executed through a separate notice to proceed subject to availability of funding and negotiation of an acceptable cost. The scope of work must be described in sufficient detail to allow preparation of an acceptable proposal covering both the initial and optional activities. Under 40 CFR 33, the State then may execute a contract for the initial (RI/FS) activities with an option to extend the scope of the contract to include RD and RA oversight.

EXHIBIT 6-2
Suggested Outline for Pre-Design Report *

1. Site Description

2. Summary of Selected Remedy

   - Description of remedy & rationale for selection
   - Performance expectations
   - Site topographic map & preliminary layouts
   - Preliminary design criteria & rationale
   - Preliminary process diagrams
   - General operation and maintenance (O&M) requirements
   - Long-term monitoring requirements

3. Summary of Remedial Investigation and Impact on Selected Remedy

   - Field studies (Air, surface water, ground water, geology)
   - Laboratory studies (Bench scale, Pilot scale)

4. Design/Implementation Precautions

   - Special technical problems
   - Additional engineering data required
   - Permits & regulatory requirements
   - Access, easements, rights-of-way
   - Health & safety requirements
   - Community relations activities

5. Cost Estimates & Schedules

   - Implementation cost estimate (Order of Magnitude, + 50%/-30%)
   - Preliminary annual O&M cost estimate and duration
   - Project schedule (design, construction, permits & access)

6. Appendices

   - Reports, data summaries, etc.

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* Many of the elements of the Pre-design Report will have been developed during the RI/FS. These may be incorporated by reference.

For those States which awarded initial RI/FS contracts prior to November 18, 1983 without the option to extend to include RD and RA oversight, a class deviation from 40 CFR 33.510 and 33.515 has been approved. The class deviation allows those States to use the A/E firm procured to conduct follow-on A/E activities (RD and RA oversight) without going through the additional public notice and evaluation procedures described in 40 CFR 33.510 and 33.515. Those States, however, must comply with all other requirements of Part 33 when awarding the follow-on contracts and must have followed all of the requirements of Part 33 (including public notice and evaluation) for the initial procurement of the A/E. If the State decides to choose a different firm for the RD, all parts of 40 CFR Part 33 apply to the State's procurement.

As discussed in Chapter 3, the State must assure EPA of its intent to comply with 40 CFR Part 33 in one of two ways:

- Evaluate its procurement system and "self-certify" that the State system is equivalent to 40 CFR Part 33
- Acknowledge, that although the State system is not equivalent to 40 CFR Part 33, it agrees to comply with 40 CFR Part 33.

This certification or acknowledgement is provided as part of the State's CA application. In either circumstance the RPM has an oversight role during the State's procurement.

If the State self-certifies, the RPM's review or oversight of procurement is reduced. However, in either case the CA special conditions specify that the RPM may review all final contract documents. In order to review contract documents and interact with the State on procurement matters, the RPM must have adequate knowledge and understanding of EPA's procurement regulations (40 CFR 33). A working knowledge of these regulations will provide the RPM with sufficient information to recognize procurement situations where additional EPA management guidance and advice are necessary.

The RPM should always review the contract SOW to ensure that the work to be done is consistent with the CA SOW, the ROD and all relevant EPA policies and guidance. The RPM should make every effort to review and comment on State contracts in a timely manner. Assistance for the RPM on procurement matters may be obtained from Regional Grants Administration Branch (GAB) and Financial Management Division (FMD) staff and from Headquarters HSCD Regional Coordinators and Grants Policy (GAD) staff.

6.2.3 Technical Transfer Briefing

If the RI/FS was Federal-lead, the RPM must oversee a technical transfer briefing between the REM contractor, the SPO, and the State design contractor. The briefing must be scheduled and coordinated by the RPM as soon as the State's contractor is selected in order to facilitate project transfer and resolve any outstanding issues or questions. The RPM should invite State and local officials and other EPA staff to participate, as appropriate. If the RI/FS was State-lead, but the RI/FS State contractor is not retained for RD, then the State should conduct a similar briefing for the new contractor. In this case, the State-conducted technical transfer briefing should be included in the CA SOW or added to the CA as a special condition.

6.2.4 Obtaining Site Access

Obtaining site access for the RD and RA is the State's responsibility. In addition, obtaining necessary rights-of-way and easements to implement remedial action, is the responsibility of the State. The RPM must encourage the State to take action early to obtain site access for both the RD or RA in order to avoid delays in implementing the remedial action. This is very important to the project schedule.

The SPO should consult State legal staff to determine the appropriate mechanism for obtaining site access for the RD and RA. If the State encounters problems with obtaining access, the RPM should consult with ORC and the HSCD Regional Coordinator for advice and assistance.

Site access where cleanup actions require short- or long-term use of property may involve access agreements or negotiation of rights-of-way with property owners. The same is true of property along proposed pipeline routes. In order to ensure that remedial construction will not be delayed due to disputes with property owners, it is essential that negotiations for site access be completed prior to the completion of the RD. If voluntary access cannot be obtained, and resistance from property owners is encountered, the State should make efforts, to the extent of its legal authority, to secure site access. If necessary, EPA may have to exercise its statutory authority under of CERCLA §104, in which case an appropriate access order for entry may have to be secured from a court having legal jurisdiction.

The *NCP* does not require permits for on-site remedial actions. Local or State non-environmental permits are the responsibility of the RD A/E firm or the construction contractor.

6.3 OVERSIGHT OF DESIGN

The State has the primary responsibility for the review and approval of the design plans and specifications prepared by the A/E firm and for submitting the design documents to the RPM for EPA review and concurrence.

6.3.1 Technical Review of Design Documents

The RPM is responsible for the coordination and EPA review and concurrence of design documents. Submissions required during the design process include:

- Preliminary design (30% complete)
- Intermediate design (60% complete - optional)
- Prefinal design (90% complete)
- Final design package (100% complete)
- Compliance with the requirements of other environmental statutes
- Equipment start-up and operator training plans.

In addition the RPM may be responsible for reviewing and concurring on work plans for bench and pilot studies during design, and reviewing and concurring on study results.

As mentioned in section 6.1.3 of this chapter, the RPM may obtain technical assistance for review of plans and specifications from REM contractors or the USACE. This assistance for the RPM is encouraged since many RPMs do not have specific expertise in the review of formal bid documents. However, the RPM must ensure that proper technical review of the draft and final plans and specifications is conducted for EPA.

To obtain technical assistance from the USACE or REM contractors, the RPM must first have funding approved on the SCAP. If funds are available, a site-specific IAG with the USACE may be developed. Assistance from REM contractors is obtained through normal REM work assignment procedures (See *Superfund Federal-lead Remedial Project Management Handbook* for details). Following each review of draft and final design documents, the RPM is responsible for one of the following: 1) notifying the SPO in writing that EPA concurs with the documents, or 2) sending the SPO EPA's written comments on the design documents. Following incorporation of EPA's comments into the design documents, written EPA approval/concurrence should be sent to the SPO.

6.3.2 Consistency with Approved ROD

The RPM has the responsibility for ensuring that the design package being developed by the State and its A/E contractor is consistent with the ROD. If major design changes are observed that would significantly alter the remedy approved in the ROD, the RPM should notify the SPO in writing to temporarily halt design activities. (Examples of major design changes are included in the *RD/RA Guidance*.) If the design change is not acceptable to EPA, the SPO should be notified in writing that the design package must be revised to be consistent with the ROD. However, if the State's justification for the proposed design changes warrants consideration by EPA, the RPM should coordinate an expeditious review of the proposed changes. If EPA review of the design concludes that changes to the ROD are justified, the RPM must prepare a ROD amendment for signature by the EPA official delegated the ROD responsibility (Regional Administrator or AA/OSWER). ROD amendment will require another public comment period. Sufficient written justification must be attached to the ROD amendment when presented to the Award Official.

Following approval of a ROD amendment, the State's CA design SOW must be revised to reflect the changes to the original ROD. Depending on the magnitude of the ROD change and level of detail in the CA SOW, the CA may either be modified by a formal amendment or by written notification by the RPM.

6.3.3 Value Engineering Review

The RPM should ensure that the State has included value engineering screening during the design phase for all remedial action projects where a potential for substantial cost saving exists. Value engineering screening will consist of listing high cost items that have a potential for cost savings. Value engineering screening is limited to project refinements which would not significantly change or alter the approved remedy. The RPM should review and approve the value engineering screening conducted by the State. (HSCD guidance on value engineering is under development.)

Those RA projects which, as a result of the value engineering screening, show a reasonable promise for significant cost savings will be recommended by the RPM for approval of formal engineering study by the State. The potential impact on the project schedule and funding requirements for a formal value engineering study will be identified by the State and submitted to the RPM for review. If necessary, the RPM should prepare a CA amendment to provide extra funds to the State for the value engineering study. The CA amendment also should incorporate necessary project schedule adjustments.

6.3.4 Design Completion

Following completion of all of the work in the RD CA SOW, satisfactory compliance with all special conditions and written RPM approval of the final design documents, the SPO should notify the RPM that the RD activity is completed. Final State financial accounting may not be completed for a period of time while all outstanding vouchers are paid and drawdowns on the State's letter of credit are completed. (The standard special condition on letter of credit requires the State to submit a Financial Status Report [Standard Form 269] within 90 days of the completion of each activity.)

As soon as possible after completion of the RD, the SPO should submit a Design Progress Report (can be included in routine Quarterly Report). As discussed in section 4.5, the progress report should include a technical and financial summary of the RD activity.

ADDITIONAL SOURCES OF INFORMATION

Letter of Credit Users Manual, EPA, Division of Financial Management.

Procurement Under Assistance Agreements (40 CFR Part 33).

"State Procurement Under Superfund Cooperative Agreements," March 1986, Volume II of State Participation in the Superfund Program. (OSWER Directive 9375.1-5)

Superfund Remedial Design and Remedial Action Guidance, OERR, June 1986. (OSWER Directive 9355.0-4)

7. REMEDIAL ACTION

Following the completion and approval of the remedial design (RD) package, the project proceeds to the implementation of the remedial action (RA). Exhibit 7-1 shows graphically the sequence of activities that normally will be undertaken in implementing a State-lead remedial action.

The purpose of this chapter is to outline the RPM's responsibilities in ensuring that the remedial action is implemented in accordance with the approved design. Although primary responsibility for the actual implementation rests with the State, the RPM must stay involved to participate in and coordinate required inspections, reviews, and approvals.

This chapter is divided into four major sections:

- Ongoing project management activities
- RA contractor procurement
- RA oversight
- Transition to operation and maintenance (O&M).

The *Superfund Remedial Design and Remedial Action Guidance,* June 1986 (hereafter called the *RD/RA Guidance*), contains more detailed information on the RA activity.

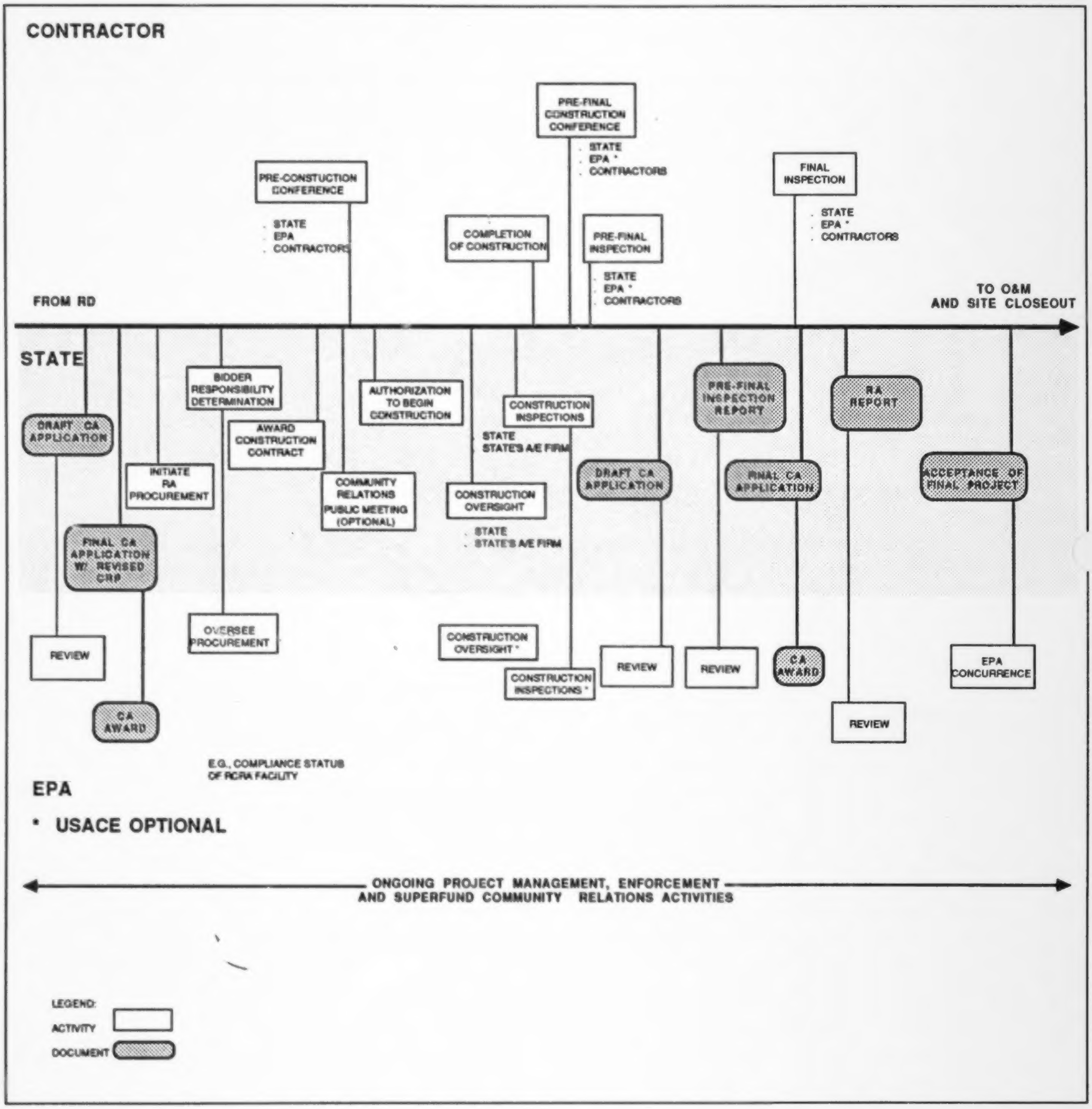
7.1 ONGOING PROJECT MANAGEMENT ACTIVITIES

As in all stages of remedial response, numerous ongoing project management activities are common to all portions of the remedial action implementation. Specific activities required during remedial action are outlined below.

7.1.1 Cooperative Agreement Amendment

Generally, the CA amendment for the RA will be made as the RD activity nears completion. (The State may choose to add the RA activity to an existing multi-site CA.) This allows the statement of work (SOW) and budget for the RA amendment to be based on prefinal or final design documents and cost estimates. The cost estimates associated with the prefinal or final design documents are within a +10/-15 percent range of accuracy. Basing the CA budget on these costs, rather than on the cost estimates developed in the feasibility study (FS) (+50/-30 percent), improves EPA's ability to manage expenditures for RA activities. The paperwork necessary to develop the technical SOW for the RA amendment is also simplified if the final design specifications are nearly complete. In its application the State may generally describe the technical tasks to be conducted and simply reference the final design documents as the specific technical SOW for the CA amendment. Usually, the only other major tasks that must be added to the SOW are the State's administrative tasks and construction oversight. (The State may receive funds to either extend the RD contract to include construction oversight or hire another A/E firm to conduct this management task.) Ongoing community relations activities should be included, as well as any other necessary site-specific tasks.

EXHIBIT 7-1
Remedial Action (RA)



To ensure that adequate funds are available for potential change orders during construction, the CA budget should include a construction contingency. This contingency is usually based on a percentage of the total project costs, and is usually in the range of eight to ten percent. (For additional guidance on estimating construction costs and contingencies, refer to the *RD/RA Guidance*, Chapter 2.) This amount is included in the construction object class category of the CA budget.

In developing an amended CA for RA activities, the RPM should make certain that it contains CERCLA Section 104(c)(3) assurances. These assurances apply during Fund-supported remedial construction activities. If the CA provides funds for a remedial action, the State is required to provide assurances regarding:

- Operation and maintenance (O&M) of remedial actions
- Off-site treatment, storage, or disposal of hazardous substances, if applicable
- Cost sharing
- Adequate capacity for destruction, treatment, or disposal of all hazardous wastes expected to be generated in the 20-year period following the assurance*
- Acceptance of any real property acquired as part of the remedy*.

The standard provision for O&M should be included in the CA. This provision states that the State must assume lead responsibility for any O&M activities required following remedial construction. In addition, the RA CA should include a provision that specifies that the State's construction contractor will be responsible for remedy startup and for certifying that the remedy is functional and operational as designed. EPA's policy is to share in the cost (90/10 or 50/50) for a period (one year or less) to ensure that the remedy is operational and functional. Chapter 8 of this manual will discuss the O&M activity in greater detail.

The State also must agree to ensure the availability of adequate off-site treatment, storage, or disposal of hazardous wastes from the project, if necessary. The assurance requires States to comply with EPA's policy memorandum entitled *"Procedures for Planning and Implementing Off-Site Response Actions,"* May 6, 1985. The memorandum addresses procedures that must be observed when a response action involving off-site storage, treatment or disposal of hazardous substances is selected under CERCLA. The policy prohibits use of a Resource Conservation and Recovery Act (RCRA) permitted facility for off-site management of Superfund hazardous substances if it has significant RCRA violations or other environmental conditions that affect the satisfactory operation of the facility. The policy strengthens previous CERCLA requirements for selection of an off-site facility in accordance with the November 1984 amendments to RCRA.

Finally, the State must share in the cost of RA. The State is obligated to pay at least 50 percent of all response costs (planning, implementation and removal) if the site was publicly-operated at the time of disposal. If it was a privately-owned or -operated site, the State is obligated to pay 10 percent of RA costs only. In either case, the State is not obligated to pay its cost share until RA.

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* These are new assurances under SARA. See page 5-3 for further detail.

During the development of the CA amendment for RA the RPM should review all of the special conditions and assurances already in the CA to ensure that these are up-to-date and sufficiently describe the RPM's role and responsibilities in the remedial project. By this phase of the remedial project, the State Project Officer (SPO) and RPM should be working very closely together and the significance of the RPM's responsibilities during the State-lead project should be apparent to the SPO. However, if the RPM has encountered difficulties during oversight of the remedial planning activities, these should be discussed with the SPO during the RA CA negotiations. During the development of the CA amendment, the RPM may modify existing special conditions or assurances to better define the RPM's role as EPA's site project manager or the RPM may add new provisions which clarify the RPM's responsibilities and authorities.

7.1.2 Data Reporting and Record Keeping

Throughout the remedial action the RPM has the responsibility to maintain thorough and accurate records. The RPM must maintain site files and relevant documentation for the purposes of project management, future cost recovery actions, as well as final audits. The RPM also must ensure that the State and RA contractor maintain sufficient and accurate records of the project. Periodic visits to the State office to check project files may be helpful to ensure proper record keeping.

During the construction activity, it is especially important that accurate records be maintained. The RPM should ensure that the following documents, at a minimum, are included in the project file:

- Copy of the State's CA application for RA and concurrences from reviewing offices (the complete Funding Package)
- Signed copy of the CA award for RA
- Copy of EPA's approval of any off-site treatment, storage or disposal facilities
- Copy of the construction contract(s)
- Copies of change orders and other significant contract correspondence
- Copies of any additional CA amendments or modifications of the RA agreement
- Copies of quarterly reports and financial reports
- Copies of the prefinal and final inspection reports
- Copies of project correspondence.

Other communications, memoranda, and relevant documents also may be included in the file, as appropriate. Further information on State recordkeeping requirements is provided in the *State Manual*, Appendix U.

As discussed earlier in this manual, a State must comply with 40 CFR Part 33 for all procurement under a CA. Several sections of 40 CFR Part 33 describe requirements which are related to reporting and record keeping. Section 33.211

describes reporting requirements for construction contracts which have, or are expected to have an aggregate value over $10,000 within a 12-month period. Section 33.250 describes general documentation requirements for contracts over $10,000. Again it is emphasized that the RPM be familiar with all of 40 CFR Part 33 prior to initiation of procurement actions by the State in order to be able to carry out monitoring and oversight responsibilities.

The RPM should ensure that the SPO is aware of CERCLA reporting and record keeping requirements and that the State maintains these records intact for three years after submission of the final Financial Status Report (SF-269) or until any litigation, claim, appeal, or audit begun during that three-year period has been settled. In addition, the RPM may assist enforcement staff in developing a cost documentation summary following RA.

The periodic updating of information for EPA's automated data systems is a continuing responsibility of the RPM. These systems include:

- CERCLIS (CERCLA Information System) -- RA start (date RA funds obligated) and end dates (date of final acceptance and beneficial occupancy) for remedial action must be entered.

- SCAP (Superfund Comprehensive Accomplishments Plan) -- The RPM should continue to coordinate with the Regional SCAP contact to ensure that the information on the SCAP is accurate and adequate to initiate and maintain RA activities.

- FMS (Financial Management System) -- Monthly and ad hoc financial status report on remedial action must be reviewed by the RPM for accuracy.

7.1.3 Permits and Site Access

During the RD phase, the RPM should have ensured that all required permits and site access agreements were identified and obtained for the implementation of the RA activity. Obtaining site access and access to adjacent properties, as well as for rights-of-way and easements necessary to implement RA is the responsibility of the State. However, the RPM should oversee/monitor these tasks to ensure that the project will not be delayed due to problems with permits and site access. The RPM should facilitate this process by assisting the SPO as necessary. Further information on this subject is provided in Chapter 6.

7.1.4 Coordination with Community Relations

The State is responsible for informing the Regional community relations staff of any changes in RA activities or progress which could affect the level of concern or information needs of the community. The State must request assistance from the Regional Superfund Community Relations Coordinator (RSCRC) and the RPM on any specific community relations activities required during construction; including:

- Participation in public meetings, workshops, and seminars
- Development of fact sheets and/or press releases
- Site tours.

The RSCRC also assists the State in evaluating all community relations activities conducted during the RA and the entire remedial response and preparing a responsiveness summary following the completed action. The responsiveness summary should be submitted within one month of completion of the response action and will become part of the National Priorities List (NPL) deletion package (see Chapter 8, Project Closeout). For further information on community relations during construction consult *Community Relations in Superfund: A Handbook,* September 1983.

7.2 REMEDIAL ACTION CONTRACTOR PROCUREMENT

The State will conduct procurement activities for the RA in accordance with EPA procurement regulations, 40 CFR Part 33. The RPM's role during procurement and level of involvement will vary depending on whether or not the States "self-certifies" its procurement system (see sections 3.6 and 6.2 of this handbook and Volume II of the *State Manual*).

7.2.1 Formal Advertising for Construction Services

Under a CA, it is the State's responsibility to procure services for RA activities. Specific requirements for Superfund RA procurement are described in 40 CFR 33.905-.915 Subpart E . The RPM must be familiar with these sections. The State's required method of procurement for construction services during Superfund remedial response is formal advertising (40 CFR 33.405-.430). Formal advertising means the public solicitation of sealed bids and the award of a subagreement based on a fixed price (lump sum, unit price, or a combination of the two) to the lowest, responsive, responsible bidder. Under the procurement regulations, formal advertising requires at a minimum:

- A complete, adequate, and realistic specification of what is required
- Two or more responsible bidders which are willing and able to compete effectively for the State's business
- A procurement that lends itself to the award of a fixed-price contract
- That the selection of the successful bidder be made principally on the basis of price.

The State is required to give adequate public notice of the solicitation, inviting bids and stating when and how the bidding documents, including the subagreement documents, may be obtained or examined. The State also must allow adequate time for bid preparation and submittal.

As the program moves into the use of complex, innovative, and alternative technologies, a modification of traditional formal advertising may be appropriate. An accepted method is the "Two Step Formal Advertisement." The two-step method may be used when it is possible to prepare a performance-based specification to describe the requirements of a remedy, but impractical to prepare initially detailed specifications to support an award based on price. For additional information, see the memorandum, "*Two Step Formal Advertisement,*" R. Wyer to Regional Superfund Branch Chiefs and Regional Grants Management contacts, March 26, 1986.

7.2.2 Contractor Selection

In accordance with 40 CFR 33.430, the State must evaluate all bids in accordance with the methods and criteria in the bidding documents. The State may request that the RPM assist in the evaluation of bids. The selection of the contractor must be made to the lowest, responsive, responsible bidder. This means that the fixed-price contract must be awarded to the bidder which has submitted the lowest bid and is (1) responsive to all the requirements of the bidding documents, and (2) responsible in terms of having the required capabilities and experience to implement the plans and specifications within schedule, cost and all other contract requirement. The State may reject all bids only when it has sound, documented business reasons which are in the best interest of the Superfund program.

When a remedial action contract includes use of an off-site treatment, storage or disposal facility, EPA must evaluate and approve such facilities prior to award of the contract. In accordance with *"Procedures for Planning and Implementing Off-Site Response Actions,"* May 6, 1985. The standard CA provision regarding off-site treatment, storage and disposal describes this requirement in more detail. The RPM must coordinate and expedite EPA's determination of acceptable off-site facilities. It is in EPA's best interest to review and approve proposed facilities quickly because bidders usually honor their bids for only 30-45 days. If the State is not allowed by EPA to award the RA contract within the specified bid evaluation time period because of delays in EPA evaluations of off-site facilities, bidders may refuse to honor their bids. This would result in schedule delays because the State would have to readvertise the contract.

At this time, the RPM also should remind the SPO that 40 CFR 33.250 describes important documentation requirements for procurements in excess of $10,000. The State's file must contain specific procurement records regarding the selection of the RA contractor. These records will be evaluated in detail by EPA auditors during interim and/or final project audits.

7.3 REMEDIAL ACTION OVERSIGHT

The State is responsible for assigning a full-time inspector(s) to be on site during all construction activities. However, the State will generally not use its own remedial staff for construction oversight because of the lack of experience in managing major construction contracts. Funds may be provided in a CA for the State to procure an A/E contractor to oversee construction. States may use the RD A/E firm for construction oversight.

7.3.1 Construction Inspections

Construction inspections will occur at intervals determined by the RPM and SPO according to the complexity of the project. The State is responsible for the inspection of all on-site construction activities to verify compliance with all contractual and environmental requirements and with health and safety procedures. The State's full time inspector should carry out inspections. Frequently, the SPO may also inspect the construction project, and less frequently, the RPM should participate in site inspections. During inspections, all daily reports and construction activities should be reviewed. All discrepancies with project requirements should be noted and resolved quickly. The RPM may assist the SPO to resolve project problems.

7.3.2 Review of State Quarterly Reports

Detailed progress reports will be required throughout the duration of the remedial project. As required in the standard CA reporting provision, the State will prepare and submit progress reports quarterly. The State may agree to submit more frequent technical progress reports to help the RPM oversee/monitor construction activities. The RPM will use the reports to monitor the remedial construction activities. The RPM will review the reports to ensure their adequacy in developing a chronological record of all site activities. The reports should include the following elements:

- Estimates of the percentage of project completed and the total project cost to date
- Summaries of the following items for the reporting period:
    - Work performed on the site
    - Community relations activities
    - Change orders and claims made on the contract
    - Problems or potential problems encountered
- Status of contingency fund to date
- Project work for next reporting period

7.3.3 Change Order/Claims Management

A change order is a written order issued by the State or its designated agent to its contractor authorizing an addition to, deletion from, or revision of a contract under a CA for either engineering or construction services. A change order is necessary to modify, within the scope of the project, the contract cost or scope of work; to interrupt or terminate the project; to revise the completion date; or, in general, to implement any deviation from the original contract terms and conditions. Ultimate responsibility for change order administration rests with the State. Specific information and guidance regarding change orders under Superfund CA's is provided in Volume II of the *State Manual,* Chapter 6.

As discussed in section 7.1.1 of this chapter, funding for construction change orders is usually included in the CA budget. A special condition requiring quarterly reporting of drawdowns of contingency funds should be included in all CAs for remedial construction projects. Quarterly Reports for construction projects should also include a summary of all change orders and copies of required technical/administrative analyses.

The RPM is responsible for general oversight of contingency fund expenditures. The RPM should monitor expenditures to ensure that funds will be sufficient to complete the project on schedule. If it appears that additional contingency funds will be needed, a CA amendment may be necessary. The RPM should anticipate this need and coordinate with the Regional SCAP contact. The RPM may request assistance from the Regional Grants Office for the evaluations related to 40 CFR Part 33

The SPO may be delegated the authority to approve any change order which totals up to 20 percent of the project contingency fund. Any change order that exceeds this 20 percent limit requires RPM approval. The SPO may continue to approve such change orders until 75 percent of the total contingency fund has been depleted afterwhich the State must obtain EPA approval. Thereafter, the State should request a CA amendment for additional funds, unless the project is near completion and no other change orders are anticipated. It should be noted that State approval of a change order does not obligate EPA to increase the amount of a CA.

Before any change order exceeding $10,000 (40 CFR 30.290) may be approved by the SPO, the State must conduct a cost or price analysis (see 40 CFR 33.290) as well as a technical/administrative analysis as described in Volume II of the *State Manual*.. If the State has self-certified its procurement system, the cost analysis for change orders approved by the SPO need not be submitted to the RPM but must be maintained in the State files. Superfund program procedures also require the State to perform a technical/administrative analysis to determine:

- The technical accuracy of the alleged differences in quantities and technical requirements
- The allowability of the proposed amounts
- Compliance with contractual and regulatory requirements
- Conformance with the approved CA SOW.

Copies of technical/administrative analyses of change orders approved by the SPO should be included in the State's Quarterly Report to the RPM.

The RPM must approve in writing all change orders that exceed 20 percent of the contingency fund and any change order that will cause the cumulative total to exceed 75 percent of the fund. The RPM should base approval upon an evaluation of the following information submitted by the SPO:

- Description of change
- The State's cost analysis
- The State's technical/administrative analysis
- Other supporting documentation as appropriate.

If a change order request is substantial and within the scope of the project, the State must request a formal amendment to the CA. Change orders requiring amendments to the CA include:

- Significantly changed site conditions, to the extent that project costs are significantly affected
- Changes substantially increasing or decreasing the funds needed to complete the project
- Significant delay or acceleration of the project schedule.

The RPM should review the proposed project change and determine if fund monies should be used to support the contract modification. The RPM also will have to determine if funding is available from the SCAP. If the change is approvable and funds are available, a CA amendment should be prepared and executed as quickly as possible so as not to delay the project. The RPM may determine that funding for the change is not justified and may inform the State that Federal funds will not be awarded for the contract modification.

A claim is a written demand or assertion by a contractor seeking, as a matter of right, changes to the contract (e.g., additional time and/or costs) which the State may have originally rejected through the change order process. Claims may be encountered by a State in subagreements for services, supplies or construction. Claims can often be avoided if a State includes very precise language in its contracts regarding requirements for administering changes in the SOW. Detailed information on claims is included in Chapter 7 of Volume II of the *State Manual*.

When a claim arises under a contract funded through a CA, the RPM should encourage the State to implement a fair and timely claims negotiation process in order to avoid lengthy and costly arbitration and/or litigation. The State is responsible for resolution of contractor claims and must conduct a detailed review of each claim in order to determine whether the claim is reasonable.

The State may request EPA to amend its CA to fund a portion of the legal, technical, and administrative costs that the State incurs in analyzing the merits of contractor claims and the costs associated with negotiating settlements of, or defending itself against, these claims. For claims management costs to be eligible for funding under a Superfund CA, the claim must arise from work within the scope of the CA; there must be significant Federal interest in the claim issues and the cost must not be for payment to the claiming contractor for preparation of the claim against the State. The State must request a CA amendment for funding for claims negotiation and defense prior to expending any money to resolve a claim. The CA amendment request should include a schedule, budget and SOW required for claims management.

The RPM must coordinate the review of the amendment request for claims management funding. If EPA review of the State's submission indicates that the claim has resulted from factors beyond the control of the State, the RPM may prepare and process a CA amendment to provide funding to the State for claims negotiation and defense. (The RPM must ensure that funds for the amendment are available on the SCAP). However, if the review sufficiently determines that the claim has resulted from poor project management by the State, EPA may reject the CA amendment request for funding. In this case, the RPM must notify the State in writing that the CA amendment is denied.

If the State determines that a contractor's claim is meritorious and a settlement with a contractor is negotiated, the State may request EPA funding for the settlement. The CA amendment request submitted by the State should include its claims settlement proposal. The RPM must coordinate review of the amendment request to determine the reasonableness of the proposed settlement (or judgment), whether the costs associated with the claim are allowable, and whether the claim is for work done within the approved SOW and consistent with the Record of Decision (ROD). EPA concurrence is not necessary for the State/contractor settlement itself but EPA's review and concurrence will determine whether funding will be provided to the State for the settlement.

The RPM must coordinate the evaluation of the amendment request. If EPA decides to fund the claims settlement (or judgment), the RPM will process a CA amendment. Of course, funds must be available on the SCAP in order to award a CA amendment to the State for additional funds. Claims are funded in the same percentage of cost share (50/50, 90/10) as the RA itself.

7.4 RA COMPLETION AND ACCEPTANCE

Three tasks are required as the RA nears completion. These are: 1) the prefinal conference and inspection; 2) the final inspection; and 3) the RA report. Additional information on these tasks is provided in the *RD/RA Guidance*.

As noted in Section 7.1.1, the State's construction contractor is responsible for remedy startup and for certifying that the remedy is functional and operational as designed. The final inspection should not be completed until the State's contractor has made this certification.

7.4.1 Prefinal Conference and Inspection

As the project nears completion, a prefinal construction conference and inspection will be conducted. Participants in the prefinal construction conference and inspection should include the RPM, SPO, the State's A/E firm responsible for construction oversight, and the construction contractor(s). The conference will be scheduled and chaired by the SPO. The objective of the conference is to discuss procedures and requirements for completing the RA. The RPM should attend the conference.

The prefinal inspection will consist of a walk-through inspection of the entire project site. The RPM and the State should inspect the completed site work to determine whether the project is complete and consistent with the contract documents and the EPA-approved remedy. The RPM and the State should identify and note any outstanding construction items discovered. The State will prepare a prefinal inspection report for submission to the RPM. The prefinal inspection report should include outstanding construction items, actions required to resolve items, completion dates for these items, and a date for conducting the final inspection.

7.4.2 Final Inspection and Remedial Action Report

Upon completion of any outstanding construction items, a final inspection will be conducted. At this time, the State should obtain certification from the construction contractor that the remedy is complete. The prefinal inspection report will be used as a checklist by the RPM and the State, with the inspection focusing on the outstanding construction items identified in the prefinal inspection. The contractor's demobilization activities should be completed, except for equipment and materials required to complete outstanding construction items. The RPM and the State will confirm that all outstanding items noted in the prefinal inspection report have been resolved. (If any items are still unresolved, the inspection will be considered a second prefinal inspection, requiring another prefinal inspection report.)

Upon satisfactory completion of the final inspection, the State/State contractor will prepare and submit a RA Report within 60 days after the final inspection (may be included in State Quarterly Report). The RA Report is used to judge the effectiveness of the remedy and to assess whether criteria for deleting the site from the NPL have been met. The RA Report should include the following items:

- Brief description of outstanding construction items from the pre-final inspection and an indication that the items were resolved
- Synopsis of the work defined in the SOW and certification that this work was performed
- Explanation of any changes to work in the SOW and why were needed
- Certification that the remedy is operational and functional (include performance criteria)
- Documentation necessary to support NPL deletion
- Description of the O&M to be undertaken at the site.

Additional auxillary reports such as the O&M plan, the O&M manual, the Community Relations Plan, and equipment /property reports also should be submitted at this time.

The RPM will review the RA Report. If the RPM is satisfied that the remedy is complete and performing adequately, the Regional Administrator shall provide written notice of EPA's acceptance of the completed project to the appropriate State Official.

7.5 TRANSITION TO OPERATION AND MAINTENANCE

As the RA nears completion, the RPM and SPO must prepare for transition to O&M. As mentioned previously, the State must assume O&M and EPA may provide cost sharing for a period not to exceed one year. In order to ensure a smooth transition to O&M the RPM should meet with the SPO during RA to discuss transition roles.

Under the Superfund Amendments, in the case of ground or surface water contamination, treatment or other measures taken to restore water quality is considered part of the RA. With respect to such measures, the operation of treatment systems for a period of up to ten years after the construction or installation and start of operation will be considered part of the RA. Activities required to maintain the effectiveness of such measures following this period or the completion of the RA, whichever is earlier, will be considered O&M.

When the RA includes construction of a treatment system other than that described above, questions may arise regarding whether the facility start-up and shakedown period is part of the RA action or whether it is O&M. This is particularly unclear in cases where actual construction is completed, the construction contractor has demobilized, and facility shakedown is anticipated to last several months.

In most cases, the facility shakedown period will be considered to be part of the RA. Remedy effectiveness must be demonstrated prior to submission of the final technical report for RA completion. During a several-month facility shakedown period, a State can:

- Conduct operational testing of the system to ensure treatment effectiveness
- Conduct operator training
- Adjust the O&M manual to reflect actual optimal operating conditions/parameters
- Develop more accurate O&M costs for the CA amendment for O&M.

In situations where the RA is a Federal-lead project the State must assume title to any facilities constructed as part of the RA. This is necessary in order for the State to assume full responsibility for all future O&M. A State may be unwilling to assume title to a Federally-constructed facility until the required treatment effectiveness has been demonstrated. In some cases, however, the State may be willing to conduct the start-up and shakedown activities since the State must assume responsibility for future O&M. As mentioned above, the shakedown period allows a State the opportunity to become familiar with a system, conduct operator training, and adjust the O&M manual prior to beginning the actual O&M activity.

On a site-specific basis, the RPM may consider having EPA enter into a CA with the State prior to full completion of the Federal-lead RA. The CA could include funding for the facility start-up and shakedown period up to one year. The CA should include a clear description of both the work to be done prior to assumption of title by the State, and also of the work to be done as O&M tasks. More detailed information on the O&M activity is included in Chapter 8, Project Closeout.

ADDITIONAL SOURCES OF INFORMATION

"Procedures for Planning and Implementing Off-Site Response Actions," AA/OSWER, May 6, 1985. (OSWER Directive 9330.2-1)

"State Procurement Under Superfund Cooperative Agreements, " March 1986, Volume II of State Participation in the Superfund Program. (OSWER Directive 9375.1-5)

Superfund Remedial Design and Remedial Action Guidance, OERR, June 1986. (OSWER Directive 9355.0-4)

"Two Step Formal Advertisement," HSCD, March 26, 1986.

8. PROJECT CLOSEOUT

This chapter discusses the procedures followed in closing out a Superfund remedial project and the specific responsibilities of the RPM in assisting with the implementation of these procedures. It is divided into three major sections:

- National Priorities List (NPL) Deletion
- Operation and Maintenance (O&M)
- Project Closeout.

Exhibit 8-1 illustrates all the activities which occur during NPL deletion, O&M, and project closeout. The top one-third represents those activities which are the responsibility of the State's contractor; the middle one-third those which are the responsibility of the State; and the bottom one-third those which are the responsibility of EPA.

Much of the information used for preparing this chapter was derived from the *State Manual* and an EPA memorandum *"Guidance for Deleting Sites from the National Priorities List,"* draft. For additional background on any of the subjects discussed in the chapter, the RPM should review these two documents. [Note: The final procedures for deleting sites from the NPL currently are being developed; consult with the Headquarters Hazardous Site Control Division (HSCD) Regional Coordinator for the latest guidance.]

8.1 NPL DELETION

Section 33.66(c)(7) of the *NCP* provides that sites may be deleted from, or recategorized on, the NPL when "no further response is appropriate." To delete a site, one or more of the following criteria must be met:

- EPA, in consultation with the State, has determined that responsible or other parties have implemented all appropriate response actions required

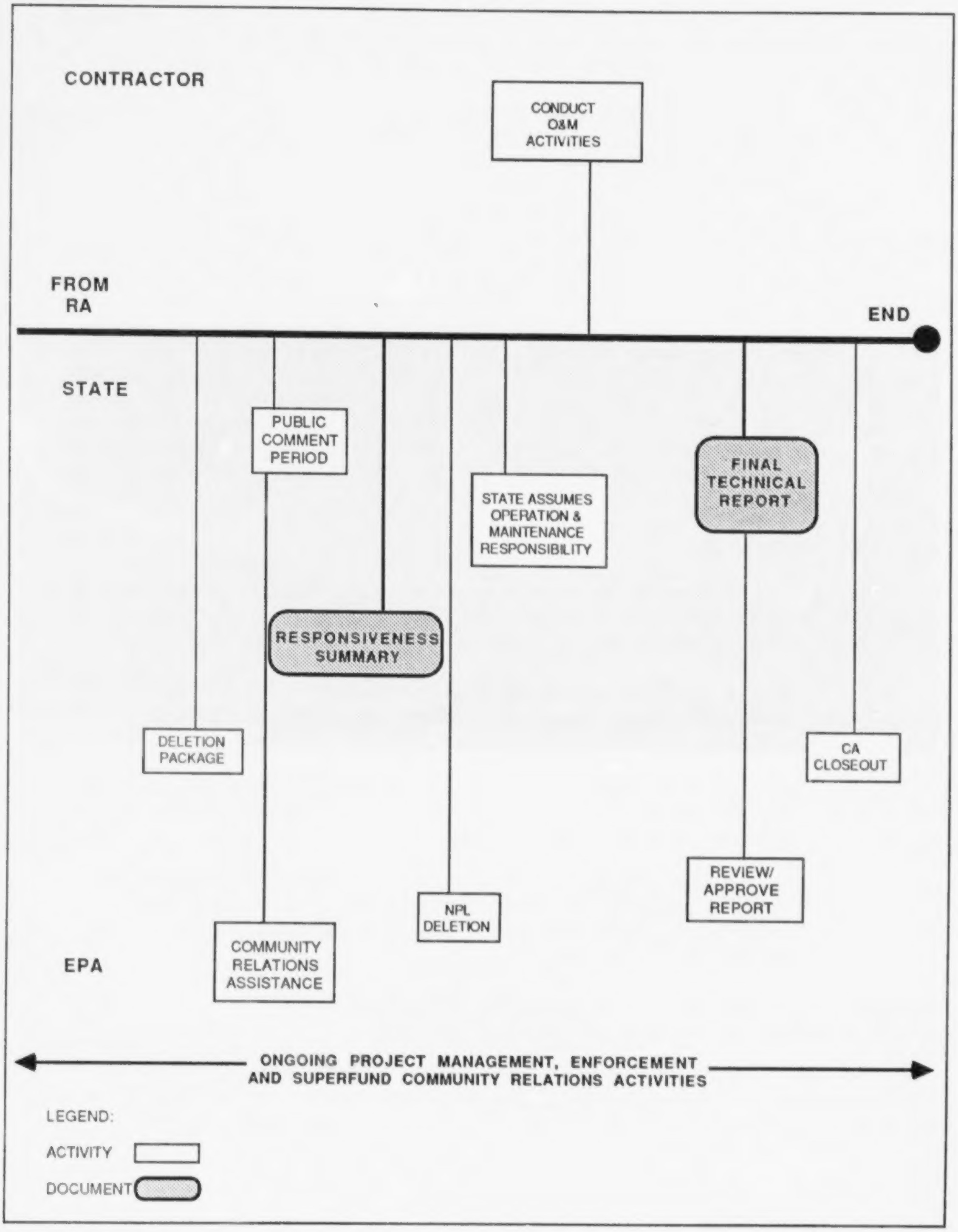
- All appropriate Fund-financed response under CERCLA has been implemented and EPA, in consultation with the State, has determined that no further response is appropriate

- Based on a remedial investigation (RI), EPA, in consultation with the State, has determined that the release poses no significant threat to public health or the environment and remedial measures are not appropriate.

All sites deleted from the NPL are eligible for further Fund-financed remedial response actions should future conditions warrant such actions.

In order to determine that one or more of the deletion criteria has been met, the RPM should perform a technical evaluation of the data generated from performance monitoring and/or confirmatory sampling. These data must demonstrate that the

EXHIBIT 8-1
NPL Deletion, Operation and Maintenance, and Project Closeout



remedy has achieved clean-up levels chosen for the site in the Record of Decision (ROD). If the no action alternative is selected, data must confirm that the site poses no significant threat to public health or the environment.

The process of deleting a site from the NPL consists of three major phases:

- Region/State joint preparation of a deletion package
- Regional/State issuance of local and national Notices of Intent to Delete
- Regional/State preparation of responsiveness summaries and Headquarter's final publication of the Notice Of Deletion in the Federal Register.

The EPA memorandum entitled "*Guidance for Deleting Sites from the National Priorities List,*" (draft) provides a more detailed discussion of site categorization for deletion and the deletion process.

8.2 OPERATION AND MAINTENANCE

CERCLA Section 104(c)(3) requires that the State assume responsibility for any O&M requirements associated with the remedy. Operation and Maintenance begins on the date certified in the RA Report that the project is complete and the remedy is operational and functional. The CA, to provide 90 percent of the O&M costs, should be awarded concurrently with (or before) the date O&M begins.

The RPM must ensure that O&M funds are accurately listed on the current Superfund Comprehensive Accomplishments Plan (SCAP) and the State must request a CA amendment to obtain O&M funds. The RPM is responsible for assisting the SPO in developing the amendment application. This may include assistance in developing the project statement of work (SOW), the budget and schedule, and those assurances and special conditions that may pertain to O&M activities. The SOW and budget for this amendment will be based on the approved O&M Plan prepared as part of the final design documents. Refer to the *State Manual* and Chapter 3 of this manual for further information on developing and executing a CA amendment.

In addition to assisting the State to amend the existing CA to include O&M activities, the RPM is also responsible for overseeing implementation of the technical, financial, and other provisions of the CA for O&M. The RPM also must continue the record keeping and reporting activities described in earlier chapters. The following sections describe the activities of the RPM in carrying out each of these responsibilities.

The State may procure a contractor to conduct O&M activities, in which case the RPM must oversee this procurement to ensure its compliance with 40 CFR Part 33. Refer to Volume II of the *State Manual*, and Chapter 3 and 6 of this manual for further discussion of contractor procurement.

8.2.1 Technical Progress Oversight

While it is the State's responsibility to implement the tasks in the O&M plan, it is the RPM's responsibility to actively monitor these tasks and their schedules as long as the CA is open. This should be done through formal and informal information sources such as site visits, telephone calls, quarterly reports, and written correspondence with the SPO. Key elements of the RPM's monitoring strategy may be as follows:

- State reporting by exception, as soon as it is noticed that any task in the O&M plan may not be accomplished as agreed. The RPM should come to an agreement with the SPO that any deviations or anticipated deviations from the schedule in the O&M plan and any problems or anticipated problems which may adversely affect the schedule will be reported to the RPM immediately. The RPM will then be responsible for assisting the SPO in correcting the deviations and/or problems.

- Periodic telephone discussions between the RPM and the SPO to assess progress in accomplishing key tasks and to identify problems affecting the implementation of these tasks. The RPM is responsible for working with the SPO to correct any problems identified.

- RPM review of State Quarterly Progress Reports to assess progress in implementing tasks in the O&M plan. The RPM is responsible for contacting the SPO to discuss and resolve any problems identified in the progress reports.

- Site visits by the RPM on an as-needed basis. The objective is to assess task progress against schedules in the O&M plan, identify problems or issues adversely affecting progress and schedules, and to develop corrective actions to resolve these problems.

8.2.2 Financial Oversight

Once the O&M CA has been executed and O&M is initiated, the RPM, along with the appropriate Regional financial management personnel, is responsible for ensuring that the State implements the O&M program within the CA budget.

The RPM should review State drawdowns on the letter of credit on a quarterly basis. The RPM should contact appropriate Regional financial management personnel to obtain this information. The RPM may request the SPO to submit a copy of the standard financial report directly to the RPM.

The RPM should determine whether:

- Expenditures correspond to technical progress
- Expenditures are excessive in terms of project needs
- CA account structures are being followed
- Complete financial records are maintained by the State for cost recovery purposes.

Drawdowns should be only for EPA's percentage of funding (e.g., 90 percent of total costs). If the RPM and SPO anticipate the need for additional funds, the RPM should coordinate with the Regional SCAP contact and ensure that funds will be added to the SCAP. When funds are available, the RPM should assist the SPO to develop a CA amendment request for additional funding. The RPM then coordinates the processing of the CA amendment through the Regional office.

8.2.3 Monitoring Agreement Provisions

The RPM must ensure that all provisions (special conditions and assurances) in the CA are met by EPA and the State. This includes both general assistance provisions and Superfund program provisions. The RPM should discuss all provisions with the SPO to ensure that all requirements of the CA are understood.

8.2.4 Data Reporting and Record Keeping

The RPM must maintain a complete file of all project activities. The RPM must document all materials that will support project oversight and support cost recovery actions. For O&M activities these may include:

- CA amendment for O&M (and any additional CA amendments)
- Quarterly Reports
- Correspondence by EPA, State, or State contractors.

The RPM also is responsible for updating information for EPA's automated systems. These systems include:

- CERCLIS (CERCLA Information System) -- O&M start date (the date the CA amendment for O&M is executed) and completion date (end of the O&M cost-share period) must be entered.

- SCAP (Superfund Comprehensive Accomplishments Plan) -- The RPM must coordinate with the Regional SCAP contact to ensure that accurate information on O&M activities appears on the SCAP prior to the start of O&M.

- FMS (Financial Management System) -- The RPM must review for accuracy the monthly and ad hoc financial status reports on the remedial program issued by FMS.

8.2.5 Operation and Maintenance Report

At the completion of the Fund-financed O&M activities, the State must prepare and submit to the RPM an O&M Report. This report should include the following elements:

- Description of O&M activities

- Results of site monitoring, indicating that the remedy meets the performance criteria

- Explanation of future additional O&M (including monitoring) to be undertaken at the site.

The report may be included as part of the State Quarterly Report (within 60 days of completion of Fund-financed activities).

8.3 PROJECT CLOSEOUT

Upon the satisfactory completion of the fund-financed response, a site-specific CA can be closed out. For multi-site CAs, a project may be closed out. The RPM is responsible for assisting the SPO in closing out the CA (or project).

8.3.1 Preparation for CA Closeout

Closeout of a single project CA can occur at several different stages of remedial response:

- Following a State-lead RI or remedial investigation/feasibility study (RI/FS) when EPA determines that no further action at the site is needed
- Following State-lead RI/FS activities which result in the selection of a remedy, but where a settlement is reached with responsible parties to conduct RD/RA activities and the State chooses not to participate in oversight activities
- Following completion of a RA when there is no fund-financed O&M
- Following completion of Fund-financed O&M.

The CA between EPA and the State should be closed out following completion of all Superfund activities at the site. All cost recovery actions must be completed and all contractor claims settled before closeout. If the CA does not accurately reflect all major changes in the project, it should be amended to do so.

The RPM and SPO should discuss closeout of the CA prior to the last quarter of funded activities. It is important that this discussion be held well in advance so that roles and responsibilities of the RPM and SPO can be clarified.

Prior to CA closeout, the RPM should ensure that:

- The final State Quarterly Report (and other required reports) has been reviewed and approved (should include summary of community relations activities)
- The State has fulfilled all CA requirements and assurances
- The CA accurately reflects all changes in the project
- EPA direction has been given to the SPO for equipment and property disposition and equipment has been properly disposed of in accordance with 40 CFR 30.532 and any pertinent special conditions in the CA (guidance on equipment disposition can be found in Appendix T of the *State Manual*)
- Any funds remaining after a project completion have been officially deobligated (or rebudgeted to another site, if a multi-site CA)
- EPA and State files are complete and contain all documentation necessary for cost recovery and audits.

EPA and State files must be maintained for a minimum of three years or three years from completion of the audit or litigation. There are exceptions that may lengthen this period.

The (draft and) Final Technical Report should include a summary of final expenditures and all technical tasks completed under the CA. The State also should indicate that all requirements of the CA provisions (special conditions and assurances) have been satisfied. The RPM should review the (draft and) Final Technical Report carefully to ensure its completeness and accuracy. If the Report is not satisfactory, the RPM should request that the SPO submit any necessary additional information prior to RPM approval of the Report.

In accordance with the standard provision on Letter of Credit Procedures, the State also must submit a final Financial Status Report (Standard Form 269) within 90 days of completion of the O&M cost share period. This form will be submitted to the Regional Financial Management Division. The RPM should obtain a copy of the form and review it for consistency with the final Quarterly Report. Any discrepancies should be noted and brought to the attention of the SPO. Discrepancies should be resolved prior to official closeout of the CA.

8.3.2 CA Closeout

If the project has been conducted under a single site CA, the CA should be officially closed out following satisfactory completion of all fund-financed activities and EPA approval of all final submission by the State. When unused funds remain in the CA, the RPM should ensure that Regional grants administration personnel take the necessary steps to deobligate these funds.

Closeout of CAs might occur during a switch from State to Federal lead during a response with no State oversight involvement or when work is to be performed by responsible parties. The vehicle for closeout is a formal CA amendment. The RPM and SPO should develop a mutually acceptable agreement stating the terms for the closeout. Based on this agreement, the appropriate reports (financial, technical, ancillary equipment and invention) will be submitted for closeout.

Under CERCLA Section 104(c)(3), the State must assume all future O&M at a site. This means that, if O&M is necessary beyond one year, the State must continue O&M activities using State funds. Following CA closeout for O&M, the RPM's official duties are completed. However, if it comes to the RPM's attention that the State is not complying with its O&M responsibilities, the RPM should notify Regional enforcement staff. The RPM should discuss the O&M problem with them and assess the severity of the problem. The enforcement offices, and the RPM, will determine the best method for correcting the problem.

Following deletion from the NPL and CA closeout for O&M, the site is technically closed out with respect to the State-lead remedial response that was undertaken. The RPM and SPO are cautioned to establish, maintain and safeguard all information collected during the entire remedial response in well-organized site files. All information pertaining to the site must be carefully documented to support future legal or cost recovery actions. These actions may occur years after the data have been gathered. It is crucial that records be sufficiently detailed and protected to provide an accurate history of the remedial response. In addition, this information will aid the RPM and SPO in answering inquiries from Congress or responding to Freedom of Information Act requests from the general public.

ADDITIONAL SOURCES OF INFORMATION

"Guidance for Deleting Sites from the National Priorities List (NPL)", Draft, OERR.

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